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THE NORTH CAROLINA AREA HEALTH EDUCATION CENTERS PROGRAM

**PROGRAM PLAN
JULY, 1985 - JUNE 1990**



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July 1, 1985 - June 30, 1990

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Introduction

This document presents a 1985-1990 Plan for the North Carolina Area Health Education Centers (AHEC) Program. It is a composite of the individual plans which were developed by each of the nine AHECs in the state and by the health science schools associated with the program. This plan and the individual plans will be reviewed annually to allow for changes in manpower needs and program priorities.

The first phase of the N.C. AHEC Program was projected through June 1980 to the General Assembly. The original plan for the program was developed in the context of health manpower needs of the early seventies and placed a heavy emphasis on physician supply and distribution. The 1980-1985 Program Plan, and subsequent program activities, reflected both continuity and new initiatives in response to a changing health manpower environment. The new initiatives begun during 1980-1985 demonstrated that the N.C. AHEC Program has the capacity to add new activities on a statewide basis in response to changing community needs. While the nine AHECs indicated they would maintain a commitment to multidisciplinary programming and to continuing to overcome the lingering problems of physician maldistribution, each also indicated through the 1980-1985 planning process that

the problem of nurse supply and distribution had become the central manpower issue for our state in the late 1970's.

The faculty and staff of N.C. AHEC Program together with the four affiliated university medical centers collectively agreed, at a statewide meeting held in Raleigh in March, 1983, to develop another long range plan for the period July 1, 1985 - June 30, 1990. The development of this plan for 1985-1990 has been as challenging and complex as the planning process undertaken in 1979 because of the rapidly changing nature of the health care delivery system. Despite these complexities the 1985-1990 planning process again incorporated the perspectives of the nine AHECs, the university health science schools, other universities, community service agencies and community practitioners and support personnel from throughout the state.

At the Raleigh meeting in March, 1983, there was also broad agreement that there are several community problems which will have an impact on the quality of life and the provision of health care in North Carolina throughout the remainder of this century. These problems will directly affect the education of health professional students and residents and will influence the continuing education needs of community practitioners of all types. Each of these

problems require interdisciplinary programs if they are to be addressed effectively. Such interdisciplinary programming will need to encompass five areas. Each of these is viewed as a target of activities by the nine AHECs, and each builds upon activities already underway in each AHEC. These issues include:

1. the health of our aging population;
2. the need for programs in health promotion and disease prevention;
3. the need to improve the recruitment and retention of mental health personnel;
4. the problems of occupational/environmental health; and
5. the need for cost-efficient management of health services.

An analysis of the appropriate role that the N.C. AHEC Program might play in addressing these major health issues through education and training has been a significant part of the planning process for 1985-1990. There is statewide agreement that the N.C. AHEC Program has a role to play in helping to meet education and training needs in each of these five areas.

Successful efforts by the AHECs in these five interdisciplinary areas, while retaining and strengthening the established education and training activities for students,

residents and community practitioners which form the underpinning of AHEC programming, would again demonstrate the ability of the N.C. AHEC Program to adapt to meet changing community needs without sacrificing its basic mission or its primary focus in education and training.

5.

Background

The North Carolina Area Health Education Centers (AHEC) Program is a unique partnership between the university health science center and the community in an effort to improve the geographic distribution and retention of well-trained health professionals and support personnel to meet the primary medical care needs of the people of North Carolina. At the present time nine AHECs help serve the health manpower development needs of North Carolina. These are (1) Mountain AHEC, (2) Northwest AHEC, (3) Charlotte AHEC, (4) Greensboro AHEC, (5) Wake AHEC, (6) Area L AHEC, (7) Eastern AHEC, (8) Fayetteville AHEC and (9) Wilmington AHEC (See Figure 1).

Under the leadership of the Dean and the faculty of the School of Medicine at the University of North Carolina at Chapel Hill, the N.C. AHEC Program and its nine area health education centers has been developed in cooperation with the other UNC-CH health science schools at Chapel Hill (Dentistry, Nursing, Pharmacy and Public Health), the

Duke University Medical Center, the Bowman Gray School of Medicine of Wake Forest University and the East Carolina University health science schools (Medicine, Allied Health and Social Professions, and Nursing).

Also included in this statewide educational program are community hospitals, health departments, various service agencies, other university campuses, community colleges, technical institutes and practicing professionals and support personnel.

Goals of the N.C. AHEC Program, 1985-1990

In the broadest sense, the mission of the N.C. AHEC Program will be the same for 1985-1990 as it has been for the period 1972-85:

It will continue to be a program devoted to the education and training of health manpower through collaborative relationships between educational institutions and service institutions.

Its education and training activities will continue to be targeted toward the retention, geographic distribution, specialty distribution and quality of health care professionals and support personnel of all types, with attention given to the need for improved minority representation in various health fields.

It will maintain and further develop collaborative relationships with other programs and agencies devoted to the planning and delivery of community health services, including community health information services, but will do so with full recognition of its primary focus on the education and training of health manpower.

During the period 1985-1990, the N.C. AHEC Program will have several broad goals in carrying out its mission. Each goal is translated to program activities in subsequent chapters of the 1985-1990 Plan. A chapter reference for each goal is found at the end of the goal statement.

- Goal 1: The program will continue to conduct and/or facilitate a variety of health education and training programs which (a) conform to the Program's Mission Statement, (b) stimulate an improved environment for professional practice with decreased isolation for health professionals and support personnel throughout each AHEC region, (c) reflect the education and training needs of primary care practice sites in underserved areas; and (d) respond to changing health manpower needs. Health education and training programs at the undergraduate, graduate and continuing education levels will be conducted or facilitated in allied health, dentistry, medicine, nursing, pharmacy and public health. (Chapter V.A.)
- Goal 2: The program will continue to develop, on a regional and statewide basis, interdisciplinary educational activities designed to address health issues such as aging, health promotion and disease prevention, mental health, occupational/environmental health and management education for health professionals. (Chapter V.B.)
- Goal 3: The program will continue the development of information and biomedical communications services which (a) are integrated into the total educational effort of each AHEC, (b) serve as regional informational resources for all types of health manpower and; (c) participate in national and statewide networks

for dissemination of health information.
(Chapter VI)

Goal 4: The program will continue the development of activities which serve to increase minority representation in health careers. (Chapter VII)

Goal 5: The program will continue to target program activities toward an improved distribution, retention and/or quality of health manpower, in the context of available health care and health manpower data. (Chapter VIII)

Goal 6: The program will continue to monitor evolving educational methodology and technology in order to assure that the educational needs of health professionals, support personnel and employing health organizations are met in the most effective and efficient manner possible. (Chapter IX)

Goal 7: The program will continue the development and evolution of an organizational structure and a style of administration which (a) recognizes the above-mentioned principles and partnerships and (b) includes a framework for regular input by AHEC-based faculty, coordinators and staff in decisions influencing their programs and their careers. (Chapter X)

Education and Training Programs: Disciplinary Focus, 1985-1990

Allied Health

The allied health professions include a variety of specialized disciplines oriented around technical, diagnostic

or therapeutic skills. These disciplines vary in the amount of education or training required, ranging from "on-the-job" training to post-graduate academic activities.

As changing socio-economic conditions and technology have an impact on health care delivery in the state, there would appear to be a steady demand for both established and new types of allied health personnel. While 1981 AHEC manpower surveys in four allied health disciplines provided baseline information on the distribution and need for selected allied health personnel, it is anticipated that additional follow-up surveys will be necessary during the period 1985-1990 in order to monitor changing manpower requirements and the supply and distribution of needed personnel.

The complexity of the allied health field, with its numerous professions and levels of training, precludes a uniformly consistent statewide approach to allied health education. Nevertheless, each AHEC will continue to coordinate rotations of undergraduate and graduate allied health students in a variety of fields. Providing high quality continuing education programs for allied allied health professionals in the state will continue as a high priority of the program.

Dentistry

The issue of dental manpower continues to be a very sensitive issue among dental professionals. While there

does not appear to be an overall shortage of dentists relative to current demand, there are several manpower issues surrounding the supply and distribution of dental auxiliaries which warrant examination. Further, the apparent gap between need, demand and utilization should be addressed by programs which can increase the effective demand for and access to dental services. A variety of AHEC-based opportunities will continue to be available to students from the UNC School of Dentistry. The purpose of these experiences will be to broaden the student's perspective on the practice of dentistry so that when they enter practice they can be responsive to the needs of underserved populations and will consider locating in an underserved area. The primary thrust in continuing education will be to increase the opportunities and access to continuing education for the dental assistant and dental hygienist. AHECs will continue to provide a comprehensive array of quality educational services for dental practitioners and their auxiliaries.

Medicine

Although substantial progress has been made since 1972 in overcoming the problems of aggregate supply and distribution of physicians in North Carolina, it is anticipated that the state will continue to experience less than adequate geographic and specialty distribution of primary care manpower

in its smallest towns. The problem of attracting and retaining primary care manpower in underserved and sparsely populated rural areas will continue through the 1985-1990 period. Consequently family practice and other primary care residencies developed by AHEC will be maintained and decentralized undergraduate clinical education will continue at current levels of approximately 33 percent for all UNC-CH medical students and approximately ten percent for students at the other three medical schools in the state. Continuing education will remain a high priority for physicians, with particular attention paid to offering high quality programs throughout the state in formats which meet the specific needs of individual practitioners.

Nursing

The recruitment and retention of well qualified nursing personnel to the health care institutions of North Carolina has been a high priority of the N.C. AHEC Program for 1980-1985. While it appears that the critical shortage of nurses experienced during the early 1980s has abated somewhat, it is anticipated that changes in the health care delivery system will pose new challenges to the practice of nursing and that conditions in the work environment which affect the quality of nursing service will remain

significant issues to be addressed in 1985-1990. The provision of continuing education designed to improve the quality of nursing service and the professional environment for the practice of nursing in community hospitals, for all levels of nurses, will remain a major thrust of the program in the future. Finally, the N.C. AHEC Program will continue to promote innovative off-campus baccalaureate and masters opportunities, initiated in collaboration with the schools of nursing in the state, as long as they are needed during the 1985-1990 period.

Pharmacy

The major manpower concern in pharmacy is to continue to enhance the quality of pharmacy practice. The major focus for 1985-1990 will be on programs which will enable the practicing pharmacist to provide comprehensive patient-oriented pharmaceutical services both the consumers and to other health professionals. During 1985-1990 the N.C. AHEC Program will support the academic externships program of the UNC School of Pharmacy which provides each student with a full semester of community-based training during the senior year. Clinical training in the AHECs for graduate pharmacy students may also be expanded during this period. Finally, continuing education for practitioners

across the state will remain a major activity of the AHEC-based pharmacy faculty and their colleagues in Chapel Hill.

Public Health

The principal public health educational efforts through AHEC will continue in the general area of community experience for graduate and undergraduate students earning the Masters of Public Health degree and the B.S. in Public Health. In addition to the on-campus M.P.H. Program of the UNC School of Public Health, the off-campus M.P.H. for public health professionals will continue to be offered in collaboration with AHEC faculty at different sites throughout the state. AHECs will continue to provide regionally accessible and affordable continuing education programs of high quality relating to public health practice for professionals and public health agencies in the AHEC regions. In addition the N.C. AHEC Program will expand its commitment to public health activities through its focus on the issues of aging, health promotion/disease prevention, mental health, occupational/environmental health and management education for health professionals.

Education and Training Programs: Interdisciplinary Focus,
1985-1990

Certain specific socio-economic issues will be of considerable importance to health manpower of all types throughout North Carolina for the period 1985-1990. Interdisciplinary discussion groups composed of AHEC faculty and staff met to discuss the issues of aging, health promotion/disease prevention, occupational/environmental health and management education for health professionals and plan for the implementation of educational programming.

The AHEC discussion groups suggested that AHECs could be effective in several initiatives:

1. developing multidisciplinary community-based experiences and identifying sites for student and resident training;
2. developing special projects for community practitioners which would address local and regional needs;
3. serving as a focus for the coordination of existing educational resources, and;
4. expanding technical assistance, consultation, information services and educational resources to address the four topic areas.

At the same time, the need to recruit and retain psychiatrists and other mental health personnel, particularly

in the public sector, has been the topic of considerable discussion. There is widespread agreement that in order to resolve the recruitment/retention issues, expanded linkages must be developed among the Division of Mental Health/Mental Retardation/Substance Abuse Services, the four university health science centers and the public mental health facilities. A plan has been proposed which would develop regional, community-based education and training programs in psychiatry and other mental health disciplines. The program activities described would utilize the N.C. AHEC Program network of multiple community/university linkages to strengthen the distribution of psychiatrists in underserved communities.

Statewide AHEC Education and Training Resources: Libraries and Biomedical Communications Services

Libraries and information services have been developed as part of a mutually supportive network with other AHEC libraries, the university health science libraries, regional resources and other components of the national biomedical communication network. The continued maintenance and development of up-to-date libraries in each of the nine AHECs is critical to the success of the 1985-1990 Plan of the statewide AHEC Program. AHEC libraries and access to information and biomedical communications services will

continue to serve several important functions namely (1) a resource to students and residents on rotation from the university, (2) a resource for students and residents based at the AHEC, (3) a resource for faculty and staff based at the AHEC, (4) a resource for practitioners and support personnel within the AHEC regions and (5) a resource for the statewide AHEC Program through various inter-AHEC exchange relationships.

Minority Representation in Health Fields

Efforts to improve the supply, geographic, and specialty distribution of health manpower must continue to include efforts to increase minority representation in health. The N.C. AHEC Program controls admission to very few programs, with the exception of some primary care residency programs and selected other activities. As such, increased representation of minorities in education and training programs is largely the responsibility of academic institutions.

The N.C. AHEC Program will, however, continue to be involved with activities which help increase minority representation in health fields. These activities will include (1) efforts which affect admissions to those education and training programs conducted by the AHEC, (2) program activities targeted to health careers awareness among young

people to increase minority representation in health fields and (3) program activities which increase the awareness among practitioners and support personnel of the health needs of minority and disadvantaged groups.

Health Manpower/Health Issues Analysis and Evaluation

The N.C. AHEC Program will continue to work with appropriate state and federal agencies to obtain current health manpower data necessary to target AHEC education, training, consultation and technical assistance activities toward an improved supply, distribution, retention and quality of health manpower of all types.

Wherever possible, the program will assist other agencies with a primary responsibility for health care and health manpower data collection and analysis (e.g. state licensing boards, the Health Services Research Center, the State Center for Health Statistics, etc.). The program will also work cooperatively with each level of the state's health planning process and with other agencies and institutions, such as the Office of Rural Health Services and the National Health Services Corps, which are equally concerned with the distribution and retention of health manpower.

Educational Technology and the Delivery of Educational Programs/Services

As a program dedicated to the provision of appropriate education and training programs of the highest quality for health manpower in the state, the N.C. AHEC Program will systematically and continually assess the rapid development of new technology for the delivery of educational programming. Although much technology is in a relatively early stage of development and sophistication, the N.C. AHEC Program is committed to enhancing its capabilities through effective technology to provide educational programs and information services to the maximum number of health professionals and institutions in the state.

Addenda: Program Implementation

The preceding program implementation sections of this statewide plan for the N.C. AHEC Program have been developed in the context of stable funding which only anticipates salary raises and inflationary increases as determined appropriate by the North Carolina General Assembly for the period 1985-1990. The faculty and staff of each AHEC and their affiliated health science schools have responded, however, to the needs of health personnel and their institutions throughout the state by proposing a variety of new projects

and expanded activities that meet the health manpower needs of 1985-1990.

Following a review of these many proposals, the AHEC Directors have selected the following items that are of particular concern for the N.C. AHEC Program for 1985-1990. These activities cannot be implemented without additional funding to the program. Projects identified in aging and mental health have been selected as high priorities for the program for the period 1985-1990.

BACKGROUND INFORMATION

I. Introduction

The first phase of the N.C. AHEC Program was projected through June 1980 to the N.C. General Assembly. The original plan for the program was developed in the context of health manpower needs of the early seventies and placed a heavy emphasis on physician supply and distribution. The 1980-1985 Program Plan, and subsequent program activities, reflected both continuity and new initiatives in response to a changing health manpower environment. The new initiatives begun during 1980-1985 demonstrated that the N.C. AHEC Program has the capacity to add new activities on a statewide basis in response to changing community needs. While the nine AHECs indicated they would maintain a commitment to multidisciplinary programming and to continuing to overcome the lingering problems of physician maldistribution, each also indicated through the 1980-1985 planning process that the problem of nurse supply and distribution had become the central manpower issue for our state in the late 1970's. Consistent with this finding in each region of the state, nursing has been a top priority item for the statewide program since 1980.

The faculty and staff of N.C. AHEC Program together with the four affiliated university medical centers collectively agreed, at a statewide meeting held in Raleigh in March, 1983, to develop another long range plan for the period

July 1, 1985 - June 30, 1990. The development of this plan for 1985-1990 has been as challenging and complex as the planning process undertaken in 1979 because of the rapidly changing nature of the health care delivery system. Despite these complexities the 1985-1990 planning process again incorporated the perspectives of the nine AHECs, the university health science schools, other universities, community service agencies and community practitioners and support personnel from throughout the state.

At the Raleigh meeting in March, 1983, there was also broad agreement that there are several community problems which will have an impact on the quality of life and the provision of health care in North Carolina throughout the remainder of this century. These problems will directly affect the education of health professional students and residents and will influence the continuing education needs of community practitioners of all types. Each of these problems requires an interdisciplinary approach to education and training if they are to be addressed effectively. Such interdisciplinary programming is viewed as a target for future activities by the nine AHECs, building upon activities already underway in each AHEC. The five areas identified include:

1. the health of our aging population;

2. the need for programs in health promotion and disease prevention;
3. the need to improve the recruitment and retention of mental health personnel;
4. the problems of occupational/environmental health and;
5. the need for cost-efficient management of health services.

An analysis of the appropriate role that the N.C. AHEC Program might play in addressing these major health issues through education and training has been a significant part of the planning process for 1985-1990. There is statewide agreement that the N.C. AHEC Program has a role to play in helping to meet education and training needs in each of these five areas.

Successful efforts by the AHECs in these five interdisciplinary areas, while retaining and strengthening the established education and training activities for students, residents and community practitioners which form the underpinning of AHEC programming, would again demonstrate the ability of the N.C. AHEC Program to adapt to meet changing community needs without sacrificing its basic mission or its primary focus in education and training.

II. Historical Framework

The North Carolina Area Health Education Centers (AHEC) Program is a unique partnership between the university health science center and the community in an effort to improve the geographic distribution and retention of well-trained health professionals and support personnel to meet the primary medical care needs of the people of North Carolina. At the present time, nine AHECs help serve the health manpower development needs of North Carolina. These are (1) Mountain AHEC, (2) Northwest AHEC, (3) Charlotte AHEC, (4) Greensboro AHEC, (5) Wake AHEC, (6) Area L AHEC, (7) Eastern AHEC, (8) Fayetteville AHEC and (9) Wilmington AHEC (See Figure 1).

Under the leadership of the Dean and the faculty of the School of Medicine at the University of North Carolina at Chapel Hill, the N.C. AHEC Program and its nine area health education centers has been developed in cooperation with the other UNC-CH health science schools at Chapel Hill (Dentistry, Nursing, Pharmacy and Public Health), the Duke University Medical Center, the Bowman Gray School of Medicine of Wake Forest University and the East Carolina University health science schools (Medicine, Allied Health and Social Work, and Nursing).

Also included in this statewide educational program are community hospitals, health departments, various service agencies, other university campuses, community colleges,

technical institutes and practicing professionals and support personnel.

The N.C. AHEC Program is a voluntary effort to:

1. provide medical, dental, public health, pharmacy, allied health and nursing students with educational opportunities throughout the state;
2. expand and enhance regional capabilities to train nursing and allied health personnel;
3. expand the regional capability to train primary care medical residents, especially in family practice; and
4. increase opportunities for continuing education, and individualized technical assistance and consultation for all health personnel.

The N.C. AHEC Program grew out of a series of community-based initiatives developed in the decade of the sixties. By 1970, the UNC-CH School of Medicine had established affiliation agreements with six community hospitals and their medical staffs for the purpose of decentralized and regionalized medical education and training.

In 1970, a report of the Carnegie Commission recommended the creation of Area Health Education Centers throughout the nation. Through the Comprehensive Health Manpower Training Act of 1971, The U.S. Congress endorsed this concept and appropriated funds to implement it on a national basis. In June of 1972, when requests for letters of intent to develop AHEC Programs were sent to the deans of medical schools throughout the United States by the Bureau of Health Manpower Education of the Department of Health, Education and Welfare, the UNC-CH School of Medicine was able to describe on-going community activities, off-campus medical education activities and established affiliations with six community hospitals.

As a result of this prior experience and commitment on the part of both the University and several community hospitals in North Carolina, the School of Medicine at the University of North Carolina at Chapel Hill was awarded a five-year, \$8.5 million federal contract on September 30, 1972, to establish three AHECs in North Carolina.

The original AHEC contract had envisioned that the program would eventually become statewide. In December, 1971, a special committee of the Board of Governors of the University of North Carolina called for a study by a panel of medical consultants to recommend a statewide plan for medical education in North Carolina to the Board of Governors.

The Report of the Panel of Medical Consultants was issued in September, 1973. It examined the health status of North Carolina, the supply of physicians, the production of physicians in existing and expanded medical schools and the recruitment and retention of additional practicing physicians for North Carolina. The Report noted the early development and potential of the N.C. AHEC Program and recommended that:

The Board of Governors prepare a plan to build upon the concept of AHECs and to develop a statewide system of medical and health education, based in hospitals in all regions of the state.

The proposed Statewide plan was adopted by the UNC Board of Governors in late 1973 and submitted to the North Carolina General Assembly in early 1974. It specifically called for the development of nine AHECs and for the further extension of clinical medical education into community hospitals, including the establishment of 300 new primary care medical residency positions and the regular rotation of undergraduate medical students through these community centers during their clinical clerkships. It recommended that state funds be provided to finance the capital costs necessary to create clinical education facilities AHEC hospitals, to support necessary additional teaching faculty in these centers and to provide stipends for the needed additional primary care medical residents.

As a result of this recommendation, the North Carolina General Assembly appropriated \$28.2 million in 1974 to strengthen and expand the N.C. AHEC Program. The appropriation included \$4.7 million for program operations and the development of new primary care residency positions, and \$23.5 million for the construction or renovation of health education facilities in communities in each of the proposed nine AHEC regions. Between 1974-85, the commitment of the UNC Board of Governors and the North Carolina General Assembly to the N.C. AHEC Program has remained strong, with increased appropriations on an annual basis consistent with the biennial budgets as proposed by the Board of Governors to the General Assembly.

In North Carolina, each AHEC is based in a community hospital or in an incorporated non-profit foundation. The governing Boards of Directors of these AHECs agree to accept the responsibility for health manpower development programs in a multi-county area. These programs span the continuum of education for a variety of health professionals and support personnel in a manner which reflects both regional and statewide needs while focusing on primary care.

At the present time, the state has a network of nine regional education centers (AHECs) in partnership with the four university medical centers in North Carolina. Each AHEC has affiliations in two directions. The first links each AHEC with one or more of the university health science schools. The second links each AHEC with its extended community and includes hospitals, health agencies and professional associations in each AHEC's multicounty region. As such, health practitioners in each community in the state have an AHEC available for manpower development activities.

This statewide network of regional centers for health manpower education and training involves:

- the presence of full-time medical and other health science faculty and staff based at each of the nine AHECs;
- the regular presence in the AHEC regions of visiting faculty and staff from the university health science schools and the regular presence of AHEC-based faculty at the University health science centers;
- the voluntary support and participation of community physicians and other health professionals, administrators and support personnel from the AHEC hospitals and from throughout the AHEC regions;

- a network of libraries which now connect almost all community hospitals to an AHEC and in turn, to a university health science library; and
- the presence of a central AHEC office at the UNC-CH School of Medicine with responsibility for overall coordination of the statewide AHEC Program consistent with the mandate of the federal and state governments, and with the needs of the university health science schools and the AHECs.

III. Assumptions

Several assumptions have guided the N.C. AHEC Program 1985-1990 planning process. These are:

Assumption (1): The communities of North Carolina continue to have (a) unmet health manpower needs, (b) the need to retain current health manpower, (c) the need to augment minority representation in health fields where representation is deficient and (d) the need to be certain that all practitioners and support personnel, be they in therapeutic, diagnostic, or institutional service roles, maintain a high level of competence. It is also assumed that, for the period 1985-1990, improving the geographic and specialty distribution, retention and quality of health manpower will require greater emphasis than increasing the supply of students and trainees.

Assumption (2): The organization of the educational process influences the practice orientation, career selection and eventual practice location of students and residents. More specifically, the decentralization and regionalization of education and training programs will increase exposure to primary care and community practice, thus increasing

the likelihood that students and other trainees will choose careers in primary care and practice in medically underserved communities.

Assumption (3): One factor that will continue to be of importance to the distribution, retention and quality of health manpower is the character of the professional practice environment. The presence of educational programs in the community ranging from student and resident education to continuing education for the practitioner will enhance the ability of the state to improve the distribution retention, and quality of health manpower of all types.

Assumption (4): Each AHEC will conduct a broad spectrum of education and training activities involving students, residents, continuing education, technical assistance, consultation and information services which are responsive to changing health manpower needs. These activities include:

a. Students

- training of students on rotation from the university to the major hospital(s) making up the AHEC;

- coordinating rotations of students from the university to other hospitals, health agencies and practitioners' offices throughout the multi-county region served by the AHEC; and
- training of students from regional universities and colleges, community colleges, technical institutes, etc.

b. Residents

- training of primary care residents on rotation from the university and/or based in the AHEC with the recruitment and selection of these residents determined, in part, by the likelihood that they will practice in underserved areas of North Carolina;
- rotation of AHEC-based and university-based residents, for some academically acceptable portion of their training, to community settings in the AHEC regions; and
- increasing collaboration with the affiliated medical school for the recruitment of residents, and for support of the educational needs of the AHEC's residency programs.

c. Continuing Education

- organizing and conducting a wide variety of continuing education and in-service education programs for all types of professionals and support personnel in the AHEC region with programs actually conducted throughout the region.

d. Technical Assistance

- providing technical assistance and consultative activities for practitioners, administrators and support personnel throughout the region.

e. Information Services

- providing access to a variety of information services, including print and audiovisual materials, automated reference services and production facilities through a library and information service network which links each AHEC to practitioners and support personnel in all counties of the state.

IV. Goals of the N.C. AHEC Program, 1985-1990

In the broadest sense, the mission of the N.C. AHEC Program will be the same for 1985-1990 as it has been for the period 1972-85:

It will continue to be a program devoted to the education and training of health manpower through collaborative relationships between educational institutions and service institutions.

Its education and training activities will continue to be targeted toward the retention, geographic distribution, specialty distribution and quality of health care professionals and support personnel of all types, with attention given to the need for improved minority representation in various health fields.

It will maintain and further develop collaborative relationships with other programs and agencies devoted to the planning and delivery of community health services, including community health information services, but will do so with full recognition of its primary focus on the education and training of health manpower.

During the period 1985-1990, the N.C. AHEC Program will have several broad goals in carrying out its mission. Each goal is translated to program activities in subsequent chapters of the 1985-1990 Plan. A chapter reference for each goal is found at the end of the goal statement.

Goal 1: The program will continue to conduct and/or facilitate a variety of health education and training programs which (a) conform to the Program's Mission Statement, (b) stimulate an improved environment for professional practice with decreased isolation for health professionals and support personnel throughout each AHEC region, (c) reflect the education and training needs of primary care practice sites in underserved areas and (d) respond to changing health manpower needs. Health education and training programs at the undergraduate, graduate and continuing education levels will be conducted or facilitated in allied health, dentistry, medicine, nursing, pharmacy and public health. (Chapter V.A.)

Goal 2: The program will continue to develop, on a regional and statewide basis, interdisciplinary educational activities designed to address health issues such as aging, health promotion and disease prevention, mental health, occupational/environmental health and management education for health professionals. (Chapter V.B.)

- Goal 3: The program will continue the development of information and biomedical communications services which (a) are integrated into the total educational effort of each AHEC, (b) serve as regional informational resources for all types of health manpower and (c) participate in national and statewide networks for dissemination of health information. (Chapter VI)
- Goal 4: The program will continue the development of activities which serve to increase minority representation in health careers. (Chapter VII)
- Goal 5: The program will continue to target program activities toward an improved distribution, retention and/or quality of health manpower, in the context of available health care and health manpower data. (Chapter VIII)
- Goal 6: The program will continue to monitor evolving educational methodology and technology in order to assure that the educational needs of health professionals, support personnel and employing health organizations are met in the most effective and efficient manner possible. (Chapter IX)
- Goal 7: The program will continue the development and evolution of an organizational structure and a style of administration which (a) recognizes the above-mentioned principles and partnerships and (b) includes a framework for regular input by AHEC-based faculty, coordinators and staff in decisions influencing their programs and their careers. (Chapter X)

PROGRAM IMPLEMENTATION

V. Education and Training Programs: 1985-1990

Several principles underlie the education and training programs to be conducted by the N.C. AHEC Program during the period 1985-1990. These principles guide both disciplinary and interdisciplinary programs.

- Each AHEC will continue to participate in the education and training of medical students, primary care residents and other health science students (allied health, dentistry, nursing, pharmacy and public health) insofar as this serves regional and statewide needs. Each AHEC will also participate in the continuing education and in-service education of professionals and support personnel of all types.
- The participation of each AHEC in education and training programs will be of two types. First, each AHEC will directly conduct or sponsor certain programs. Second, each AHEC will facilitate other programs through co-sponsorship of activities under the direct sponsorship of another service agency or educational institution.

- The programs of each AHEC will continue to span the continuum of education. They will consist of traditional academic programs, continuing education programs and more individualized technical assistance and consultation programs.
- The programs of each AHEC will continue to be conducted at the AHEC center and in counties throughout the AHEC region.
- The programs of each AHEC will continue to focus on both the special needs of individual health professionals and support personnel and on the interdisciplinary health issues identified at the regional and state levels.
- Since AHECs do not grant academic degrees, their programs will continue to give academic credit through association with various academic institutions, including universities, colleges, community colleges and technical institutes. AHECs are committed to maintaining the highest possible educational standards so that participants can receive appropriate professional recognition. Consequently, recognition for participants attending continuing education programs will be derived through the AHECs' association with, and in accordance with guidelines established by, academic institutions,

professional societies, and/or other appropriate educational organizations.

- Each AHEC will continue to have full-time and part-time faculty in a variety of health disciplines. These individuals are the AHEC-based representatives of the affiliated health science schools and have the responsibility for maintaining the academic quality of the education and training programs of the AHEC.
- Consistent with the public mandate of the N.C. AHEC Program, each member of the AHEC faculty and staff will continue to devote attention to (a) education and training activities which span the continuum of education and (b) the education and training needs of practitioners and support personnel in each of the counties served by the AHECs.

V.A. Education and Training Programs: Disciplinary Focus

Goal 1: The first goal of the AHEC Program is to continue to "conduct" (sponsor) and/or "facilitate" (co-sponsor) a variety of health education and training programs which (a) conform to the Program's Mission Statement, (b) stimulate an improved environment for professional practice with decreased isolation for health professionals and support personnel throughout each AHEC region, (c) reflect the education and training needs of primary care practice sites in underserved areas and (d) respond to changing health manpower needs. Health education and training programs at the undergraduate, graduate and continuing education levels will be conducted or facilitated in allied health, dentistry, medicine, nursing, pharmacy and public health.

In fulfilling this goal, the 1985-1990 Statewide Plan is based upon the foregoing principles for the education and training activities for each health manpower discipline represented in the Program. For each discipline the following objectives also apply on a statewide basis.

- To have faculty conduct subjective and/or objective evaluations of the various undergraduate, graduate and continuing education and in-service programs conducted by the Program.
- To encourage each health science school affiliated with the program to have defined activities to

stimulate the professional and academic growth of AHEC-based faculty.

- To conduct education and training activities in rural counties including, where appropriate, the rotation of students and residents for some academically acceptable portion of their training to rural primary care centers.
- To improve the understanding of students, residents, practitioners and support personnel with respect to such health issues as aging, health promotion/disease prevention, occupational/environmental health and management education for health professionals.
- To carry out activities which increase the likelihood that students and residents enrolled in AHEC-sponsored programs will remain in underserved areas in North Carolina.
- To fulfill a set of quantitative projections, by year, for each year of the 1985-1990 Plan. These projections are developed by each AHEC and its affiliated health science schools. They represent students on rotation to the AHECs, primary care residents in training at the AHECs and continuing education programs in each AHEC region.

The descriptions of the disciplinary-focused education and training programs included as part of the 1985-90 AHEC Plan are arranged according to the major health manpower disciplines represented among the four university health science centers associated with the Program. They are allied health, dentistry, medicine, nursing, pharmacy and public health.

For each discipline there is (1) a brief description of the manpower/health issues for the next five years (1985-90), (2) a description of program activities in undergraduate education, graduate education and training, continuing education and technical assistance and (3) a description of program activities designed to address the issues of aging, health promotion/disease prevention, occupational/environmental health and management education for health professionals. A more detailed background discussion of these issues is contained in Chapter V.B.

It should be noted that rapidly changing economic conditions, revised policies related to the reimbursement of health care, emerging technology and the development of alternate forms of health care delivery are likely to have an impact on even the assumptions upon which current projections of the quantity and types of health manpower needed are based. Assessment of health manpower issues in the disciplines is made with the acknowledgement that

forecasts of health manpower requirements plans based on current estimates and data might require modification in the future. The N.C. AHEC Program will remain flexible to respond to any changing needs and educational requirements that may affect students and practitioners involved in AHEC education and training programs.

1. Allied Health

Allied Health Manpower Issues

The allied health professions include a variety of specialized disciplines oriented around technical, diagnostic or therapeutic skills. These disciplines vary in the amount of education or training required, ranging from "on-the-job" training to post-graduate academic activities.

In terms of the health care delivery system in North Carolina and the activities of the N.C. AHEC Program, the broad category of "allied health" principally includes the following disciplines:

- medical laboratory technology
- radiologic technology
- respiratory therapy
- physical therapy
- occupational therapy
- speech, hearing and language therapy
- medical social work
- dietetics and nutrition
- medical records
- food service
- rehabilitation counseling

Several issues have been identified as of increasing importance among the allied health professions:

- uneven distribution/shortages in some allied health disciplines;
- retention of allied health manpower;
- certification or licensure;
- emergence of non-hospital or non-traditional practice settings;

- technological advancements and need for renewal of skills and knowledge, both discipline-specific and general;
- cost containment and possible reduction of institutional services involving allied health personnel;
- self-employment, private practice options for the therapeutic allied health disciplines; and
- career ladder/growth opportunities, which are related to retention factors.

Some of these disciplines, for example medical laboratory technology and radiologic technology, have developed into a number of sub-specializations which reflect advancements in technical equipment and procedures used in health care settings.

In 1981, the N.C. AHEC Program conducted statewide manpower surveys in medical technology, radiologic technology, respiratory therapy and physical therapy. These surveys assessed total staff numbers, current vacancies, vacancy rates, resignation rates and projected needs for 1985 and/or 1986 among hospitals, health departments and other agencies which employ these personnel. At the time of the surveys, employers in several regions of the state forecast significant manpower needs for 1985-1986 in respiratory therapy and physical therapy. During the period 1985-1990 AHECs will assess and address manpower issues for particular disciplines which are appropriate for their region.

As changing socio-economic conditions and technology have an impact on health care delivery in the state, there would appear to be a steady demand for both established and new types of allied health personnel. The N.C. AHEC Program will make every effort to monitor changing manpower requirements and the supply and distribution of needed personnel. While the 1981 surveys provided baseline information on the distribution and need for selected allied health disciplines, it is anticipated that additional follow-up surveys will be necessary during the period 1985-1990 unless other data collection mechanisms are in place. In addition the N.C. AHEC Program will support efforts to review the need and demand for the education and training of other allied health personnel, such as clinical technicians with multiple competencies, which may be needed in the innovative types of health care settings now being established in many communities throughout the state.

Allied Health Education and Training Programs

The allied health education and training programs which will be conducted as part of the 1985-1990 AHEC plan have been designed to respond to the allied health needs of the various regions. The overall objective of allied health education and training programs will be to facilitate the appropriate distribution and retention of well-qualified

allied health personnel in North Carolina, and to continue to provide a bridge between the AHEC-affiliated schools of allied health and the local community. These programs are:

1. Undergraduate and Graduate Education Programs

Undergraduate and graduate rotations for allied health students to AHEC settings originate from a variety of allied health schools that use the AHEC network as a classroom for students. These schools are in community colleges, technical institutes, at various colleges and universities and at the academic health science centers.

Since the number of schools and types of allied health students receiving some training in AHEC settings is very extensive, the reader is referred to the nine AHEC plans for more details. The allied health education and training programs at Western Carolina University, East Carolina University and Duke University Medical Center will continue to be affiliated with the N.C. AHEC Program. The Department of Medical Allied Health Professions at the UNC-CH School of Medicine is also affiliated, and will continue to have regular rotations to AHEC settings for students

in physical therapy, occupational therapy, medical technology, speech and hearing, rehabilitation counseling and radiologic sciences. These rotations vary from six to ten weeks for all students. In addition, the allied health programs of many community colleges and technical institutes and of various community hospitals will continue to use AHEC settings for student rotations.

In order to ensure the continued supply of well trained allied health personnel, AHECs will continue to provide opportunities for students in allied health professions at university and community college programs with high quality clinical experiences in community settings.

In addition, during the 1985-1990 period, AHECs will continue to assess the demand and to document the need for additional opportunities for undergraduate and graduate education programs for practicing allied health professionals.

2. Continuing Education

The AHECs will provide high quality, affordable, and geographically accessible continuing education programs and experiences to practicing allied health professionals of all disciplines in cooperation

with the AHEC-affiliated health science schools, other cooperating educational institutions and regional/state professional associations. This continuing education programming will continue to be designed for development of new skills and knowledge and for clarification of practice issues in individual disciplines; there will also be an increased focus on multi- and inter-disciplinary programming on issues in health care practice.

3. Technical Assistance/Consultation

The AHECs will continue to provide assistance to institutions, agencies and professionals in the design of educational programming and the identification of resources.

Allied Health Education and Training Resources

Because of the number of schools training allied health personnel in North Carolina, each AHEC has several academic relationships involving community colleges, technical institutes, colleges, universities and service agencies which sponsor allied health training programs of one type or another.

There is, nevertheless, a primary academic affiliation for each AHEC insofar as faculty appointments for the AHEC-based allied health coordinators are concerned. These academic affiliations are as follows:

Northwest AHEC	Bowman Gray School of Medicine
Fayetteville AHEC	Duke University Medical Center
Eastern AHEC	East Carolina University
Mountain AHEC	Western Carolina University/UNC-Chapel Hill
Area L AHEC	UNC-Chapel Hill
Wake AHEC	UNC-Chapel Hill
Greensboro AHEC	UNC-Chapel Hill
Wilmington AHEC	UNC-Chapel Hill
Charlotte AHEC	UNC-Chapel Hill

The faculty from each of these schools serve as a primary resource to AHEC education and training programs in allied health.

Each AHEC has a member of the staff serving as its allied health education and training coordinator. During the period 1985-1990 efforts will be made to provide for the full time equivalent of a coordinator and assistant coordinator in allied health in each AHEC. This staff augmentation will allow each AHEC to help meet the changing health manpower needs outlined in sections of this chapter.

In addition to these individuals, the AHEC-based faculty in medicine, nursing, dentistry, pharmacy and public health also serve as faculty for allied health programs. Finally, countless allied health practitioners throughout the state who are employed in hospitals and other agencies give many hours of time as teachers of students and continuing education programs in allied health. These individuals also serve on a variety of allied health advisory committees which exist in each of the AHECs, and which guide the development and implementation of allied health programs in each AHEC region.

Special Program Activities

The AHECs will provide interdisciplinary education and training activities to help address major issues facing all health care disciplines. The AHEC allied health coordinators will also provide educational programs specifically designed to address these issues:

Aging

- provide continuing education programs which address the needs felt by allied health practitioners as they work with elderly citizens.

- identify opportunities for clinical student rotations in those community settings providing team care to older persons; and
- provide technical assistance, consultation and information on educational resources to allied health professionals and to agencies.

Health Promotion/Disease Prevention

- provide education and training activities for allied health professionals in professional aspects of health promotion/disease prevention, in methods for the effective delivery of patient education and in personal health promotion strategies.

Occupational/Environmental Health

- include information on issues of occupational and/or environmental health whenever appropriate in AHEC programming. This will include information specific to various disciplines as well as information specific to health problems in occupational or community settings which are relevant to a variety of health professional disciplines.

Management Education for Health Professionals

In many clinical settings allied health personnel achieve supervisory or management positions as a result of demonstrated competency and longevity at the agency. In such cases the individual may have had little or no formal training in aspects of management and supervision. The AHECs will continue to provide continuing education programs and technical assistance in health services management for allied health professionals; whenever possible, these programs will be developed in collaboration with the employing institutions.

2. Dentistry

Dental Manpower Issues

The issue of dental manpower continues to be a very sensitive issue among dental professionals. Many in the practicing profession believe that there is now an oversupply of dentists in the state. While the accuracy of manpower projections are problematic in a growth state such as North Carolina, there is currently no overall shortage of dentists relative to current demand.

It is impossible to predict accurately the manpower trends in the state for the 1985-1990 period, but it seems unlikely that the supply trends will change much. The reduction in class size implemented at the UNC School of Dentistry, which will begin with the graduating class of 1988 will have only a modest impact on the total numbers of new dentists entering practice. As long as North Carolina continues to attract large numbers of dentists trained outside the state, it is expected that the supply of dentists will continue to increase.

The manpower issue with respect to dental auxiliaries is somewhat different. Although precise statewide data do not exist, there does not seem to be any overall shortage of auxiliaries at the present time. It has been suggested that there are several manpower issues surrounding the

supply and distribution of certified dental assistants which warrant examination. Since these manpower problems which have an impact on the delivery of efficient and cost effective dental services are integrally related to the education and training of dental personnel, the N.C. AHEC Program will explore the feasibility of collecting timely and valid data which will be used for program planning during the period 1985-1990.

Dental disease trends in North Carolina are changing and will probably continue to do so during the 1985-1990 period. The trend in North Carolina and nationally is towards a significant decrease in the caries rate due to the success of fluoride and other preventive measures. The caries rate may be expected to decline still further as a result of new advances in prevention, such as the use of sealants, and increases in the demand and utilization of dental services.

At the same time, however, there have been increases in the incidence of other dental problems, such as periodontal disease. In addition, the aging of the population suggests an increase in the proportion of the population who might benefit from periodontal and complex restorative services and expertise in the treatment of geriatric patients. In summary, there is probably a large unmet need for dental treatment. Although the need for dental treatment is virtually

universal, a significant proportion of the population never demands or receives it for a variety of reasons. This gap between need, demand and utilization should be addressed by programs which can increase the effective demand for and access to dental services.

Dental Education and Training Programs

The UNC School of Dentistry has developed a wide range of education and training programs in the AHEC regions. The experiences available for undergraduates and graduates through rotations and externships will continue to accommodate the requirements of the curricula and conform to the dental laws of the state. Within this framework a set of rotations and externships has been designed which provides students with experience in serving a variety of underserved populations and types of delivery systems in the various AHEC regions.

The purpose of these experiences is to broaden the student's perspective on the practice of dentistry and on the alternatives available within the profession so that when they enter practice, they may be responsive to the needs of the underserved populations and will consider practicing in an underserved geographical area or institutional setting. It should be noted that the UNC School of Dentistry is involved in a curriculum revision and that, therefore,

all statements with respect to dental student rotations are subject to change. The dental education and training programs that will be conducted as a part of the 1985-1990 AHEC Plan include:

1. Undergraduate Dental Education

The Junior Summer Externship Program is a four-week elective program designed to permit students to develop an on-site knowledge of areas of the state that are in need of dental manpower.

The Third Year Community Dentistry Block Assignments are required one-week rotations for all dental students with assignments to a spectrum of community health experiences. These include institutions with a special population (a correctional facility or mental health facility), a county health department, a private group practice for community rotations and a Veterans Administration Hospital or the North Carolina Memorial Hospital for hospital rotations.

The Senior Summer Externship Program is a six-week elective taken by about one-half of all senior dental students. It provides in-depth clinical experience under the supervision of

on-site dental faculty in a variety of settings, including V.A. Hospitals, community hospitals, health departments, correctional institutions and institutions for the mentally ill or retarded.

The Fourth Year Community Dentistry Rotation Program is required four-week rotations for senior dental students. Two weeks are spent in various community settings and two weeks are spent in hospital dentistry rotations. The goal of the hospital rotation is the development of diagnostic skills with medically compromised patients while the goal of the community rotation is the development of skills in dealing with underserved populations.

A program of one week clinical rotations in Cherokee, N.C. at facilities operated by the Indian Health Service is sponsored by the departments of pedodontics and removable prosthodontics.

Special Rotations are available each semester for any students who have completed their requirements and wish to pursue special interests.

3. Graduate and Post-graduate Education

Students in the endodontics, general practice residency, pedodontics and periodontics graduate programs participate in one month anesthesiology rotations to various hospitals in the AHEC system. Post-graduate educational programs are primarily designed to develop clinically competent dental generalists and specialists capable of functioning in the hospital environment as clinicians, teachers, administrators, or clinical health sciences researchers. Extensive experience in comprehensive family-based care, primary care, emergency care and the operating room give the dental resident a broad experience.

A two-year general practice residency program is based at the North Carolina Memorial Hospital and includes rotations in anesthesiology, oral surgery, physical diagnosis, ambulatory medicine, otolaryngology, emergency care and radiology. Some of these rotations occur at designated AHEC sites. There are also currently two one-year hospital based post-graduate experiences affiliated with the AHEC system. These are based at the Eastern and Charlotte AHEC. There are no current

plans for expansion of these activities using AHEC resources.

4. Dental Hygienists

All dental hygiene students have special experiences in laboratory, hospital and public health sites in AHEC settings. They study dental public health, hospital dentistry, oral biology, pedodontics, periodontics and geriatric dentistry during their rotations. There are also rotations which give students the opportunity to work in V.A. Hospitals, mental health facilities and county health departments.

5. Dental Auxiliary Teacher Education (DATE)

The off-campus DATE Program of the UNC School of Dentistry is designed to offer a B.S. degree to dental auxiliary educators, many of whom teach in the community college/technical institute system, who cannot leave their teaching positions to become full time resident students. One-semester internships for DATE students based at the UNC School of Dentistry are located in the Mountain, Northwest, Charlotte, Greensboro, Fayetteville and Eastern AHECs. In addition, an off-campus

DATE Program has been conducted in the Greensboro AHEC in cooperation with the Guilford Technical Community College. Plans to assess the feasibility of offering an innovative non-traditional Master's Program in DATE will take place during 1985-1990.

Continuing Dental Education/Technical Assistance

While there may not be a need for merely increasing the number of continuing education programs for dentists, there is always a need to assure that appropriate programs of the highest quality are available to practitioners throughout the state on a regional basis. There is also a particular need to increase the opportunities and access to continuing education for the dental assistant and dental hygienist. In addition there is a need to assess the demand and opportunities for innovative undergraduate and graduate degree programs for practicing dental auxiliaries as well as the dental auxiliary faculty of community colleges and technical institutes.

The N.C. AHEC Program will respond to the continuing education needs of practitioners and auxiliaries throughout the state as they are expressed through the N.C. Dental Society, the N.C. Board of Dental Examiners, local dental societies and the AHEC dental advisory committees.

AHECs will continue to offer basic training programs to facilitate an adequate supply of properly skilled dental auxiliaries. Courses, such as "Intraoral Radiography for Office Trained Assistants" and "Monitoring Conscious Sedation", which have been designed to enable auxiliaries to meet legal requirements for performing job functions, will be held as needed.

AHECs will continue to provide a comprehensive array of educational services for dental practitioners and their auxiliaries. This shall include formal sponsorship and cosponsorship of educational programs designed to meet both professional and community needs and access to the information resources of the AHEC library network. In addition, consultation and technical assistance concerning available educational resources will be made available to local dental societies and study groups as requested.

Dental Education and Training Resources

As the only dental school in North Carolina, the UNC School of Dentistry is affiliated with each of the nine AHECs for dental education and training programs. Each AHEC, however, has also collaborated with other dental educational programs which are conducted throughout the

state. During the period 1985-1990, every effort shall be made to work with the UNC School of Dentistry, the Department of Dentistry of the Bowman Gray School of Medicine of Wake Forest University and dental programs conducted throughout the community college/technical institute system in order to maximize the efficient use of educational resources, both facilities and personnel.

Each AHEC has a person on its staff who serves as coordinator of dental activities for the AHEC. Each of these persons serves part-time and may or may not be a dentist.

Many local dentists and dental auxiliaries also serve as a major resource to the program through membership on the dental advisory committees in each AHEC which have a significant voice in the definition and implementation of AHEC dental programs.

Special Program Activities

Aging

In order to deal effectively with our increasing elderly population, dental professionals must increase their knowledge about, and sensitivity to, the needs of this population. The N.C. AHEC Program will encourage this learning process through the following activities:

1. identification of appropriate community-based opportunities which emphasize experiences in geriatric dental care;
2. advocacy for the acquisition of information resources and training materials in geriatric dental care; and
3. where requested, provide continuing education for personnel in long-term care facilities and hospitals regarding dental needs of the older patient.

Occupational/Environmental Health

Activities in occupational health will focus on the dental office environment. Attention will be directed toward hazards in the dental office, including mercury, nitrous oxide, radiation and infectious disease, as well as job-related stress among dental personnel.

Health Promotion/Disease Prevention

Dentistry has long been active in the health promotion/disease prevention arena. Its advocacy for fluoridation of water supplies, proper nutrition and dental hygiene has been effective in reducing dental disease and promoting good dental health. New efforts should be directed toward

overcoming barriers to care for the large segment of the population not seeking dental care, so that this group may share in the benefits of proper prophylactic care. Programming may emphasize innovative techniques for increasing demand for dental services.

Management Education for Health Professionals

Forces noted earlier in our discussion of manpower and health issues in dentistry will bring pressure for improved management of dental health resources in the 1985-1990 period. Programming in the 1985-1990 period will address effective office management, including staff management, quality assurance and marketing of services.

3. Medicine

Medical Manpower Issues

Available data prepared by the Health Services Research Center, the four Schools of Medicine, the State Health Planning Agency, the Office of Rural Health Services and the N.C. AHEC Program indicate that there has been a major improvement in the supply of physicians from 1970 to the present time. There has also been a significant improvement in the geographic and specialty distribution of physicians in all regions of North Carolina.

Nationally a number of studies have predicted a surplus of physicians in the near future. These studies notwithstanding, it is anticipated that the state will continue to experience less than adequate geographic and specialty distribution of primary care manpower in its smallest towns because the problem of attracting and retaining primary care manpower in underserved and sparsely populated rural areas will continue through the 1985-1990 period. Consequently, most AHECs have indicated a need for physicians in several communities in their region. These needs, however, tend to be for specific sites and for specific specialties rather than for across-the-board increases in physician manpower within their region.

The N.C. AHEC Program, while not directly involved in the medical schools' policies with respect to medical student enrollment, must be in a position to respond to changes that the medical schools may make in enrollment.

The N.C. AHEC Program will remain flexible to respond to any changing requirements for community-based rotations for medical students and residents. A careful analysis at this time indicates that the level of training in medical schools of North Carolina and the residency programs throughout the state is adequate to meet the projected population growth for the state and the projected attrition rate of practicing physicians. The influx of physicians from other states and graduates of foreign medical schools is one of the major sources of the projected surplus of physicians nationally and in North Carolina.

The continued thrust of the N.C. AHEC Program will be to work with the problems of geographic distribution of physicians and the type of services that these physicians can provide. The need for medical manpower appears to be greatest in the Eastern and Area L AHECs, although all regions project some needs.

Medical Education and Training Programs

The objectives of the medical education programs for the AHEC Program for 1985-1990 are:

- to introduce the medical student to the community and to demonstrate the attractive qualities which exist in the communities of North Carolina for the practice of excellent medicine, in addition to making available educational programs to ensure the maintenance of skills and the acquisition of new knowledge as it evolves;
- to educate and train their replacements by means of the residency programs;
- to maintain the cognitive knowledge and skills of the physicians now practicing in North Carolina; and
- to enhance the practice environment in order to retain physicians now in practice and to attract the appropriate physicians to identified underserved areas.

1. Undergraduate Medical Education

Students enrolled in the four medical schools in North Carolina will continue to rotate for their community medical experiences through the N.C. AHEC Program as they have in previous years. There is no anticipated change in the approximate

percentage of the curriculum devoted to off-campus training. Thus, about 10% of the clinical education of Bowman Gray, Duke and ECU students will be in AHEC-based programs. Similarly, a third of the clinical training of all UNC students will occur in off-campus AHEC settings. All UNC medical students will have an opportunity in their first year to spend a day at a rural group practice site. Medical students in their second year at UNC will continue to receive part of their experience in physical diagnosis at AHEC sites. Third-year students will continue to have clinical clerkships in internal medicine, pediatrics, obstetrics and gynecology, surgery and psychiatry at AHEC sites, while fourth-year students will continue to have an obligatory "acting internship" off-campus in internal medicine or pediatrics and an obligatory "preceptorship" in family medicine.

If at some subsequent date the enrollment of medical students is changed, it is planned that the same percentage of total clinical training of students would continue to take place through the N.C. AHEC Program.

2. Graduate Medical Education

At present, the number of residency opportunities and the fields in which they are offered would appear to be in reasonable consonance with the number of students finishing their medical education in the state.

The following family practice training programs are supported by AHEC: Bowman Gray School of Medicine, Duke University Medical Center, ECU School of Medicine, UNC-CH School of Medicine, Mountain AHEC, Fayetteville AHEC, Greensboro AHEC and Charlotte AHEC. The internal medicine programs at all of the medical schools in the state receive some AHEC support as do the programs at the following AHECs: Wilmington, Greensboro and Charlotte. Pediatrics, like internal medicine, has been able to expand with AHEC support in each of the four medical schools, and there are pediatric residency programs in the Greensboro and Charlotte AHECs. Obstetrical programs in the four medical schools have expanded with AHEC support and community-based residencies are available at the Charlotte and Wilmington AHECs. In addition, AHEC support is provided to the Wake AHEC for internal medicine, obstetrics/gynecology and

pediatric training for residents rotating from programs at North Carolina Memorial Hospital. No change in the programs offered in the previous five-year plan is contemplated at this time.

3. Continuing Medical Education

During the period 1985-1990 continuing education will be one of the more important aspects of the N.C. AHEC program in medicine. The challenge of maintaining the intellectual and educational character of the community environment that helped attract physicians to North Carolina will be a critical factor in their retention. It will also be essential to help keep physicians up to date with the latest medical knowledge so they can best serve the citizens of North Carolina. The introduction of newer methods for patient care along with advances in biotechnology will make medical practice increasingly more complex. The N.C. AHEC Program provides an ideal network for the rapid dissemination of new information to the practitioner.

During the 1985-1990 period, medical faculty from the medical schools and the AHECs will continue to conduct specialty consultation clinics in

various medical specialties in small towns that lack such services. These clinics are excellent forms of continuing education for the private practitioners who refer their patients to the clinics. The clinics also offer realistic education for medical students and residents who accompany faculty to the small towns.

Medical Education and Educational Resources

The four universities and their health science schools provide a major resource for the N.C. AHEC Program. The fact that the N.C. AHEC Program is an interlocking network also means that any component may in a particular instance be a major resource to other components.

The schools of medicine have an affiliation agreement with one or more AHECs so that their responsibilities and support are clearly spelled out. These affiliations are as follows:

Bowman Gray School of Medicine of Wake Forest University	Northwest AHEC
Duke University Medical Center	Fayetteville AHEC
East Carolina University School of Medicine	Eastern AHEC
UNC-CH School of Medicine	Area L AHEC Charlotte AHEC Greensboro AHEC Mountain AHEC Wake AHEC Wilmington AHEC

It is within this framework that the faculty in the medical schools and in the AHECs are a primary resource for education and the development of new skills for physicians throughout the state. Each AHEC has full-time and/or part-time faculty based at the AHEC. As of January, 1984, there were about 83 such faculty, and the number is projected to grow modestly to 85 by 1985. Faculty in each AHEC have their academic appointments in the medical school affiliated with the AHEC.

In addition to the full- and part-time faculty, a significant number of private practicing physicians contribute time and effort to the teaching of medical students and residents throughout the N.C. AHEC Program. It is estimated that about 25% of all private physicians in North Carolina will provide such services during the period 1985-1990.

Finally, faculty based at the medical schools themselves spend a considerable amount of time visiting AHEC settings and conducting conferences, lectures, etc. for medical students, residents and practicing physicians.

Special Program Activities

The AHECs will provide education and training experiences designed for multi-disciplinary groups and oriented around major issues facing all health care disciplines. A more detailed discussion of these issues may be found in Chapter

V.B. Similarly, the focal points of continuing medical education throughout the AHEC network will be:

Aging

- provide continuing medical education programs for both general and specialty specific topics;
- offer opportunities for increased exposure for both students and residents in community settings providing care to older persons; and
- provide consultation on geriatric medicine for practicing physicians and health care delivery agencies.

Health Promotion/Disease Prevention

- develop significant components of on-going continuing medical education which emphasize the professional aspects of health promotion and disease prevention in the delivery of patient education and behavior modification.

Occupational/Environmental Health

- incorporate into continuing medical education activities, information on community issues of occupational/environmental health, whenever appropriate.

Management Education for Health Professionals

- provide non-clinical continuing education programming and technical assistance which focuses on management education which is relevant to the delivery of health care in both the physician's office and the hospital setting.

4. Nursing

Nursing Manpower Issues

The 1980-1985 five-year plan for the N.C. AHEC Program indicated that nursing was a critical manpower shortage area facing the state and gave nursing education and training activities the highest priority for AHEC programming. In 1980, and again in 1982, the N.C. AHEC Program conducted a statewide nurse manpower survey in North Carolina. The surveys documented the nature and extent of the shortage of nurses in the state and provided the program with other useful information which was used to design educational strategies to improve the situation.

These surveys were also of value in the decision of the Program on Access to Health Care to convene a statewide Task Force on Nursing in order to develop a set of recommendations that could be used by government, professional associations, academic institutions, hospitals, AHECs and others to help overcome the nurse manpower problems facing North Carolina. At the present time, in the absence of hard data, there is an impression that the critical shortage of nurses experienced during the early 1980's has abated somewhat, although shortages still exist in many of the more rural areas of the state.

It is also the considered opinion of many that changes in the health care delivery system will pose new challenges to the practice of nursing and that conditions in the work environment which affect the recruitment and retention of nursing personnel remain significant issues to be addressed.

In the acute care setting delivery of care may focus on the more critically ill patient requiring nurses to act in the more specialized roles of clinical specialists, critical care, discharge planners and managers. Similarly, with the increasing complexity of problems faced by patients outside the hospital setting there will be an increasing demand for acute and rehabilitative skills for specialized nursing roles in out-patient services, such as home health agencies, hospice, rehabilitation units, outpatient clinics, health maintenance organizations and long-term care centers.

Specific objectives to meet these issues for the period 1985-1990 include:

1. to continue to work to help implement the recommendations of the Task Force on Nursing of the program on Access to Health Care;
2. to continue to promote innovative off-campus baccalaureate opportunities for RNs;
3. to assess the need and opportunities for off-campus MSN education for practicing nurses in specialized

- settings and for faculty in community college/technical institute programs;
4. to provide educational opportunities to assist nurses in administrative positions to further develop management/leadership skills;
 5. to provide educational opportunities for nurses at all levels to develop clinical skills, both acute and rehabilitative, necessary for practice in inpatient and ambulatory settings;
 6. to continue to encourage the development of innovative "transition" programs for nurses assuming new roles; and
 7. to assess and expand the educational opportunities in geriatric nursing necessary for the care of geriatric ill and well populations.

Nursing Education and Training Programs

The nursing education and training programs that will be conducted as a part of the 1985-90 AHEC Plan respond to the above health manpower issues. These programs are:

1. Undergraduate Nursing Education

Education of registered nurses takes place in a variety of health care institutions, agencies, and educational settings throughout the AHEC

regions. In some instances, AHEC-based nursing faculty have helped coordinate the clinical assignments for nursing students, when one or more nursing programs are trying to make maximum use of the limited number of clinical facilities. In some instances, AHEC nursing and medical faculty serve as teachers of these nursing students. During the period 1985-90 these activities and AHEC's role in them will continue relatively unchanged.

2. B.S. in Nursing for the Registered Nurse

The 1980-85 AHEC Plan noted the need to make available academic programs for qualified RNs leading to a baccalaureate degree in nursing, which would also allow them to remain employed in their current positions. The past three years have brought heightened interest in such programs among nurses in North Carolina, and have seen increased planning within the N.C. AHEC Program to assure that BSN opportunities were made more accessible to as many RNs in North Carolina as possible.

For those RNs who are unable to matriculate in on-campus programs the N.C. AHEC Program has worked

with its affiliated nursing schools to plan for off-campus BSN programs. Such programs allow the RN to pursue a baccalaureate degree on a part-time basis closer to home, while continuing to hold a regular job. At the request of the UNC Board of Governors and in association with the deans of five of the UNC Schools of Nursing, the N.C. AHEC Program is now implementing a plan for five off-campus baccalaureate degree nursing programs designed for the practicing RN in five underserved regions of the state.

Off-Campus Baccalaureate Degree Nursing
Programs for the Practicing R.N.

<u>School of Nursing</u>	<u>Location of Program</u>	<u>Duration</u>
University of North Carolina at Chapel Hill	Fayetteville	1983-1985
Western Carolina University	Marion	1983-1986
East Carolina University	Edenton	1984-1986
University of North Carolina at Greensboro	Hickory; North Wilkesboro	1984-1986
University of North Carolina at Charlotte	Gastonia	1985-1987

In addition, the Wake AHEC and North Carolina Central University are implementing a program designed to identify and counsel students and to facilitate BSN education for registered nurses in the Wake AHEC area.

The N.C. AHEC Program will continue to promote innovative off-campus baccalaureate opportunities as long as they are needed during the period 1985-90.

3. Graduate Nursing Education

Graduate nursing students continue to receive clinical and community health experiences in the AHECs. Several AHEC nurses facilitate arrangements of high quality educational experiences and coordinate these experiences with those of other nursing students in their area.

The Wilmington AHEC in cooperation with the East Carolina University School of Nursing will soon complete an off-campus masters program for nurses in the Wilmington region. During the period 1985-90, the N.C. AHEC Program will continue to assess the need and opportunities for additional off-campus M.S.N. education programs in concert with the planning activities of the

University of North Carolina. Of particular concern will be the academic needs of faculty in the community college/technical institute system.

4. Nurse Practitioner Training

The only remaining AHEC-based undergraduate family nurse practitioner (FNP) training program in the state is located at the Mountain AHEC in Asheville. This program graduates approximately 10 students per year. The program has recently added a major geriatrics curriculum which is coordinated with training conducted by the MAHEC family practice residency program. Current plans to determine the demand for nurse practitioners in the western part of the state will also address the changing role of FNP's.

5. Continuing Education and Technical Assistance

AHEC-based nursing faculty and coordinators will devote a major portion of their time and effort to the further development of a regional system of continuing education programs for nurses of all types and in all kinds of practice settings. These programs, combined with individualized

technical assistance provided by AHEC nurses, have created a regional support system that has contributed to high quality nursing care and has greatly reduced the professional isolation of the nurse in the small town.

Nursing Education and Training Resources

The academic affiliations in nursing for the nine AHECs were determined by the individual AHECs in a manner which serves regional needs. The academic affiliations are as follows:

- | | |
|----------------------|---|
| 1. Mountain AHEC | Western Carolina University;
UNC-Chapel Hill |
| 2. Northwest AHEC | UNC-Greensboro |
| 3. Charlotte AHEC | UNC-Charlotte; UNC-Chapel Hill |
| 4. Greensboro AHEC | UNC-Greensboro |
| 5. Wake AHEC | UNC-Chapel Hill |
| 6. Fayetteville AHEC | Duke University |
| 7. Area L AHEC | East Carolina University;
UNC-Chapel Hill |
| 8. Eastern AHEC | East Carolina University |
| 9. Wilmington AHEC | UNC-Chapel Hill |

Each AHEC now has at least two full-time nurses serving as the staff coordinators of all AHEC nursing activities

for its multi-county region. These nursing coordinators have faculty appointments at the school or schools with which the AHEC has its primary affiliation(s) in nursing. In addition to these primary affiliations, each AHEC works collaboratively with all other nursing education programs in its region, whether they be at the diploma, associate degree, or baccalaureate degree level.

In addition to these full-time coordinators, the faculty based at the various affiliated schools of nursing devote time to help meet the education and training needs of the AHECs. Finally, many nurses from communities throughout each AHEC region give countless hours of time and effort to the design and implementation of AHEC programs. This includes time devoted to serving on the nursing advisory committees of the nine AHECs.

Special Program Activities

Aging

1. Expand training opportunities in collaboration with community resources in gerontological nursing that address care of the geriatric ill and well populations, normal and abnormal processes of aging;

2. support the regional directors of nursing in long-term care facilities in professional educational activities;
3. provide management education for directors of nursing and other nursing personnel in long-term care; and
4. work collaboratively with other agencies, schools, or groups to provide interdisciplinary clinical experiences for health science students.

Health Promotion/Disease Prevention

1. Provide educational opportunities to strengthen the knowledge and skills in health assessment and to identify nursing strategies to improve health, reduce risk factors and evaluate progress of their clients toward wellness; and
2. develop strategies including consultation/technical assistance to assist nurses in their role as change agents.

Occupational/Environmental Health

1. Provide programming that identifies occupational/environmental hazards and delineates nursing strategies to reduce risks in the provision of care.

Management Education for Health Professionals

1. Provide management and leadership programming on a regional or agency basis that addresses basic management skills and concepts; and
2. sponsor and co-sponsor regional and statewide programs that provide opportunities for nurse managers in advanced/executive skills and changes in the economic, technologic, social and political health care environment to facilitate the delivery of safe and effective care.

5. Pharmacy

Pharmacy Manpower Issues

Available data from the North Carolina Board of Pharmacy indicate that the supply and distribution of pharmacists in North Carolina are reasonably adequate. A few eastern counties appear to have some shortage of pharmacists but they are actually served by adjacent counties and, in some cases, by the metropolitan areas in the neighboring state of Virginia.

The major manpower concern in pharmacy is to continue to enhance the quality of pharmacy practice. The major focus for 1985-1990 will be on programs which will enable the practicing pharmacist to provide comprehensive patient-oriented pharmaceutical services both to consumers and to other health professionals.

Pharmacy Education and Training Programs

The pharmacy education and training programs that will be conducted as a part of the 1985-1990 AHEC Plan respond to the above health manpower issues. These programs are:

1. Undergraduate Pharmacy Education

The Academic Externship Program is a required 15 week rotation for all senior pharmacy students at the UNC-CH School of Pharmacy. In this full-semester, pharmacy students gain practical experience in a community and a hospital pharmacy and in the patient care units of community hospitals or a nursing home. This required rotation for all pharmacy students is one of the hallmarks of the 1985-1990 AHEC Plan in pharmacy and will occur in all nine AHECs.

2. Graduate Pharmacy Education

The 1985-1990 Plan incorporates the Masters Degree in Pharmacy Practice. Even though the number of students enrolled in this program has dropped, there is still a great potential for these students to receive their training in the AHECs.

3. Professional Pharmacy Education

The Doctor of Pharmacy (Pharm.D.) degree program was approved by the UNC Board of Governors and implemented in the fall of 1981; the first five students graduated in May, 1983. During

the student's second year of the two year program, selected AHECs will be used for clinical training.

The N.C. AHEC Program offers an organizational and clinical framework for conducting certain portions of regular degree programs of the various health science schools in off-campus settings. The School of Pharmacy is actively investigating a program of AHEC-based educational programs for practicing pharmacists which would permit pursuit of the Pharm.D. degree on a part-time basis over several years. Should the School of Pharmacy and the university system reach an understanding and funds be provided, the N.C. AHEC Program will be supportive in conducting the off-campus Pharm.D. program.

4. Continuing Pharmacy Education

During the 1985-1990 period, mandatory continuing pharmacy education as permitted by current legislation may become a reality. If so, it is anticipated that the increased involvement by practicing pharmacists will have an impact on the demand for accessible quality continuing education. The AHECs will continue to be responsive to the educational needs of practicing pharmacists in

their region and in collaboration with the UNC-CH School of Pharmacy will continue to offer a comprehensive selection of continuing education programs and information services throughout the state.

5. Technical Assistance

AHEC Pharmacy faculty will continue to serve their regions as resource persons in the areas of pharmacy, pharmacology and therapeutics. Several AHECs have supported the development of Drug and Poison Information Centers to assist physicians, pharmacists and other health personnel with questions of immediate concern. Further development of a decentralized Drug and Poison Information Network is anticipated during the 1985-1990 period.

Pharmacy Education and Training Resources

The UNC School of Pharmacy maintains an administrative unit for coordination of all student education activities in pharmacy with each of the AHECs. The School of Pharmacy is directly affiliated with all nine AHECs.

Each AHEC has at least one full-time equivalent pharmacy faculty member. These faculty are trained in the practice of clinical pharmacy. In addition to serving as regional

coordinators for the education and training programs described above, these faculty serve as clinical pharmacy practitioner-educators and, wherever possible, teach students and residents in their respective AHEC's medical residency program(s). This dual role fosters interdisciplinary learning and demonstrates the feasibility of clinical pharmacy services at the community level.

The involvement of the AHEC-based pharmacy faculty with the mission of the School and goals of the N.C. AHEC Program has developed beyond the level originally anticipated, and additional AHEC-based faculty may be needed. Additional funding would be required if this expansion is to occur.

Practicing pharmacists throughout North Carolina serve as teachers of pharmacy students on a voluntary basis. These practitioner-instructors play a vital role in the education of pharmacy students and complement the AHEC-based pharmacy faculty. Over 180 community and hospital pharmacists serve in this capacity throughout the state. Many also serve on regional AHEC pharmacy advisory committees.

Special Program Activities

Each AHEC will work cooperatively with the School of Pharmacy and with other appropriate groups in developing and conducting its special programs on the issues of (1) aging, (2) health promotion and disease prevention, (3) occupational

and environmental health and (4) management education for health professionals. While such programming frequently may be most effectively accomplished through intra-AHEC, interdisciplinary program development, specific pharmacy programming and activities in each of the four areas will be conducted as indicated below.

Aging

Specific programming emphasis in 1985-1990 for aging will focus on the optimization of rational and safe drug use in the elderly. AHEC-based pharmacists will work with local pharmacy societies to support community-based pharmacy programs to assist with education of the elderly. In addition, student projects addressing drug considerations for the geriatric patient will be encouraged.

Health Promotion/Disease Prevention

The pharmacist is in a unique position to disseminate information necessary to promote health and to prevent illness. Specific programming in each of the AHECs will be developed to increase the community and hospital pharmacist's awareness of the degree to which programs can be developed to help consumers better understand factors influencing health and disease.

Occupational/Environmental Health

AHECs will encourage the development of educational programs addressing the issues of drug and alcohol use and abuse in the work place as well as studies in the area of health professional impairment with alcohol and other drugs. The AHEC Pharmacy program will support and cooperate with the newly formed Task Force of the North Carolina Pharmaceutical Association and the North Carolina Society of Hospital Pharmacists on the Impaired Pharmacist.

Management Education for Health Professionals

Specific programming, held in conjunction with local and state professional associations, will provide opportunities for management education and training for pharmacists.

6. Public Health

Public Health Manpower Issues

The major providers of public health services in North Carolina are the local health departments or districts under the North Carolina Division of Health Services. These agencies are also the major employers of public health personnel. Other employers include the community mental health centers and home health agencies. Public health personnel represent a wide range of disciplines including nursing, medicine, environmental engineering, administration, health education and a variety of technological and therapeutic allied health disciplines.

Some manpower issues (such as regional shortages of licensed physical therapists and high turnover rates among nursing staff) involving public health personnel are related to specific disciplines. Other manpower issues are related to the nature of public health practice: local health departments are often not competitive with acute care facilities in terms of salaries, benefits, career opportunities and quality of the practice environment. Changes in the reimbursement process for medicare and other financial pressures in health care during 1985-1990 may place greater pressures on health departments and home health agencies to provide services previously provided by hospitals.

At the same time some hospitals are broadening their financial bases by establishing community outreach services similar to those traditionally in the domain of the local health departments. Another health manpower issue in public health is the increased need for more specialized personnel, particularly among nursing staff, trained in maternal/child health, occupational health and physical assessment.

Several health issues are of particular importance to public health practice in the state.

1. The growing elderly population will place increasing demands on the public health sector for increased in-home services, including care for patients with more complex illnesses than are typically seen now by public health providers in home care.
2. The local health departments have primary responsibility for monitoring and controlling a number of environmental health problems such as the disposal of hazardous wastes and inadequate sewage and water treatment systems. This problem will place an increasing burden on health departments, some of which have inadequate numbers of staff or minimally trained sanitarians.
3. Health education will continue to be an emphasis for public health departments,

particularly as it relates to increased screening for high-risk groups (hypertension, diabetes, etc.).

4. Substance abuse, particularly among young people, is of increasing concern for public health agencies.

Public Health Education and Training Programs

The overall goal of the N.C. AHEC Program in the area of public health is to encourage, through education and training activities, the adequate distribution, retention and quality of health manpower in public health agencies across the state. The N.C. AHEC Program will continue to be involved in conducting and facilitating education and training programs based upon systematic assessments of regional and local needs and professional manpower trends. Activities will be consistent with the underlying goals of the N.C. AHEC Program and will include involvement with undergraduate and graduate education and training, continuing education and technical assistance, with special attention devoted to major health issues facing health professionals in North Carolina.

The primary university affiliation for public health programming through the N.C. AHEC Program is the UNC School of Public Health, which is affiliated with each of the

nine AHECs. The School maintains an administrative unit responsible for coordinating the activities of all nine departments with the AHECs. Each of the nine AHECs has one or more staff members whose full- or part-time responsibilities are to coordinate AHEC activities in the public health sector. These coordinators work with university and AHEC faculty/staff in designing educational services for specific disciplines in public health settings.

1. Undergraduate and Graduate Education

The AHECs will seek to encourage better distribution of trained public health personnel by providing opportunities for students in health care disciplines to receive high-quality clinical and community practice in public health settings. During 1980-1985 six of the nine departments of the school have been involved in AHEC student rotations, namely Health Policy and Administration, Health Education, Nutrition, Maternal and Child Health, Public Health Nursing and Biostatistics. Two types of rotations are involved: "concurrent" (one day a week) and "block" (four to twelve weeks, usually during the summer), in an AHEC region. The N.C. AHEC Program will also continue

to encourage and support public health rotations for students in nursing, allied health and other health care disciplines.

The N.C. AHEC Program will continue to provide an organizational structure for the School of Public Health to conduct off-campus programs leading to the Master of Public Health degree. These programs will continue to provide opportunities for practicing public health practitioners to upgrade their skills in order to serve their community better. Faculty of the School will travel to the off-campus locations to teach courses involved in the three-year programs. Those students currently enrolled in off-campus M.P.H. programs in the Northwest AHEC (Hickory) and the Wilmington AHEC will complete their programs in Health Policy and Administration and Public Health Nursing in 1987. Two new programs will begin, the first in 1986 and the second in 1987, in locations not yet determined.

2. Continuing Education

AHECs will provide regionally accessible and affordable continuing education programs of high quality relating to public health practice for professionals and public health agencies

in the AHEC regions. These programs will include seminars, workshops and conferences ranging from several hours to several days in length, according to the topic(s) involved.

Programming will have as its main objectives to provide up-to-date information on scientific advances and innovations in the design and delivery of health and human services, to reduce the lag between development of new knowledge and its application in practice, and to offer short-term training in technical specialty areas not normally available in existing formal educational programs.

These continuing education opportunities will include those addressing multi-disciplinary issues such as aging. It is anticipated that such programming will increase during the 1985-90 period.

3. Technical Assistance/Consultation

With the cooperation of university and community resources, the AHECs will continue to provide assistance, upon request, to public health agencies and groups including development of educational programming, institutional diagnosis of education

and training needs, management development and information and referral services.

Special Program Activities

During the 1985-1990 period the N.C. AHEC Program will expand its commitment to public health activities through its focus on the issues of aging, health promotion/disease prevention, occupational/enrironmental health and management education for health professionals.

Aging

During 1985-1990 the public health sector, like the rest of the health care industry, will be concerned with a rapidly expanding elderly population which should increase demand for services. At the same time, pressures for cost containment in health care will limit resources and increase competition among providers. Health departments may also be asked to serve more acutely ill homebound patients than previously. In such an environment, innovative approaches to managing services will be necessary. The AHECs will provide continuing education, technical assistance and information services to public health agencies and professionals relevant to the needs of the growing older population which they serve.

Health Promotion/Disease Prevention

Health promotion and disease prevention has been a primary concern of public health, and public health agencies will remain in the forefront of the growing health promotion movement. The AHECs will be active in the provision of education, training, consultation/technical assistance and information to public health agencies and professionals relevant to cost-effective approaches to the provision of health promotion/disease prevention educational activities. This will include, in particular:

- development of student rotation experiences in public health promotion/disease prevention projects;
- linkages with public health agencies aimed at specific aspects of health promotion; and
- provision of local, regional and/or statewide educational programs on the community development of health promotion projects.

Occupational/Environmental Health

Hazards in the environment and the workplace threaten the health of many North Carolinians. The major responsibility for monitoring and controlling these occupational and environmental hazards rests with public agencies at the

federal, state and local levels. In order to meet their responsibility, those charged locally with this task must continually renew their knowledge and skills.

The ability of the health care system to respond to the impact of environmental and occupational hazards will depend upon the continued awareness of health care providers of potential hazards and their effects. To meet these needs for continuing training, AHEC will work closely with those agencies and university programs having expertise and concerns in this area.

Management Education for Health Professionals

AHECs will continue to provide continuing education and training for managers and supervisors at all levels in public health, and technical assistance to public health agencies in its region. In addition, the N.C. AHEC Program will support the continued availability of the off-campus master's degree program and the regional master's degree program in Health Policy and Administration from the UNC School of Public Health so that working public health professionals in various AHEC regions will have access to graduate level management training.

V.B. Education and Training Programs: Interdisciplinary Focus

Certain specific issues will be of considerable importance to health manpower of all types throughout North Carolina for the period 1985-90. These issues reflect:

1. the aging of our population;
2. the desire for programs of health promotion and disease prevention;
3. the need to improve the conditions for the recruitment and retention of psychiatrists and other mental health personnel;
4. the concerns for occupational and environmental health; and
5. the need for more effective management education of health professionals.

Goal 2: The N.C. AHEC Program will continue to develop, on a regional and statewide basis, interdisciplinary educational activities designed to address health issues such as aging, health promotion/disease prevention, mental health, occupational/environmental health and management education for health professionals.

The following sections include a summary of the interdisciplinary manpower and health issues facing the state and a statement of the interdisciplinary education and training activities that will become a significant focus of the N.C. AHEC Program for the period 1985-1990.

7. Aging

Manpower and Health Issues

"By the year 2000, one of every eight North Carolinians will be sixty-five or older. As a group, older people require much more medical care than do younger ones, so that, as their share of the population grows, their use of medical care - total and per capita - increases from this cause alone." (The Future of North Carolina - Report of the N.C. 2000 Commission).

There is statewide recognition of a demographic imperative to address the issues of health care for North Carolina's older population. Clearly, there are human, financial and organizational reasons to prepare health care professionals and agencies to meet the needs of this rapidly growing segment of the population. The N.C. 2000 Commission specifically mentions the preparation of health care personnel in Recommendation 18 of the "People" section of its report: "Increase incentives to encourage health personnel to undertake and/or update training in geriatric and gerontological specialties; and ensure the availability of adequate instruction."

These and other recommendations of the Commission on the Future of North Carolina were the basis for subsequent specific recommendations in August, 1983 of the State Goals

and Policy Board Work Group on Health Care Needs of Older Adults; these recommendations stressed the need for appropriate preparation and continuing education of health professionals.

The 1982 North Carolina State Health Plan features several issues related to the aging population. These issues were analyzed in a later publication, Selected State Health Issues: Analyses and Recommendations, 1982. This report examines the problem of long-term care for the elderly including cost, reimbursement policies, respite care, home care and federal/state legislation affecting long-term care. Among other recommendations are several calling for interagency planning in case management, in respite care, and in creation of the "nursing home without walls" concept.

The character of the illnesses presented by the older population will reflect the numerous lifestyle-related health problems in our society. At the same time, heightened consumer expectations on the part of a better educated population will alter the patient-provider relationship. There is also an increasing number of providers and educators who recognize the need to alter the attitudes of a large segment of health care professionals toward the care of the healthy, ill or frail older adult.

There are human and financial reasons for a trend towards increased services in home care and more careful attention to the appropriate coordination of acute care and long-term care placement. There is also a growing trend toward the health care team approach to assessment, care and support for elderly persons. This interdisciplinary approach enhances continuity, quality and cost-effectiveness of health care to this older population. Health care providers, those in training and those in practice, must be ready to implement interdisciplinary care.

The 1980-85 Five Year Plan included these concerns about the state's aging population and activities already conducted or underway in each of the nine AHECs are extensive. As an extension and expansion of this emphasis, the N.C. AHEC Program formed a multidisciplinary discussion group on aging in the summer of 1983 to recommend directions which the program and the individual AHECs might take in meeting the educational needs of health professionals relative to health needs of an aging population. The discussion group, which included representation from each of the AHECs, examined the current status of educational programming in the state, assessed the areas of greatest concern for the 1985-90 period and presented recommendations, which are summarized below, to the Program Director and AHEC Directors.

Program Activities

The overall goal of N.C. AHEC Program activities in aging is to enhance the quality of health care manpower and resources relative to the needs of the older population through a variety of educational activities in all areas of the state. In support of the statewide program emphasis in this area, each AHEC will develop individual projects and activities designed to meet local and regional needs.

Undergraduate and Graduate Education

AHEC will help identify opportunities in all disciplines for community-based clinical experiences in health care delivery for older persons, with the following considerations:

- the experiences should include care of well elderly persons as well as of the chronically ill or frail;
- rotation sites should include a variety of institutional and non-institutional settings including home health, ambulatory care, acute care and long-term care; and
- preceptorships should involve community practitioners with experience in utilizing community resources in care of older patients.

AHECs will attempt to expand the knowledge base available for the preparation of health science students and medical residents by facilitating the research and curriculum development of AHEC faculty/staff in the area of aging.

Continuing Education

AHECs will make available to practicing health professionals ample opportunities for acquiring new knowledge and skills in the health care of the elderly and in the management of services to the elderly. The AHECs will continue to provide accessible, high-quality, continuing education programs to health care professionals; these programs will be designed to meet regional, institutional and discipline-oriented needs.

Technical Assistance/Consultation

The AHECs will continue to provide assistance and information to agencies and groups serving older adults in such areas as educational programming and institutional diagnosis for management training.

Libraries and Information Services

The AHECs will make available, through the AHEC Library and Information Services Network and the four affiliated academic health science libraries, extensive information resources and audiovisual programs on health care needs of the elderly.

Additional Activities

The above listed activities of the N.C. AHEC Program will take place during the period 1985-1990, assuming maintenance of the base budget of the Program. The N.C. AHEC Program recognizes that opportunities exist to expand its programming in aging in response to community needs. However, such expansion requires additional staffing and fiscal resources.

8. Health Promotion/Disease Prevention

Manpower and Health Issues

There is a clear recognition in North Carolina among health planners and health service agencies that a significant number of the health problems which are very costly to treat are problems related to poor health practices and harmful environmental factors. Health promotion/disease prevention activities are perceived, therefore, as a means to achieve both an enhanced quality of life and reduced health care costs. In order to design and carry out these activities, it is necessary that health professionals assume a leadership role in educating the public. This role requires that health professionals also keep up to date with proven techniques of public and patient education and behavior modification.

In the N.C. 2000 Commission's Report on the Future of North Carolina, health is a focus of major concern. Goal V, in the section of the report on the people of the state is: "To Foster a Safe Environment and Encourage Healthy Lifestyles." Two of the recommendations of the Commission are specific to health promotion/disease prevention:

Recommendation 14: Strengthen and expand the state's health education program.

Recommendation 15: Develop health education, health promotion and accident prevention programs for use by private sector groups, such as employers, civic groups and churches.

These recommendations are based on specific trends and problems described by the Commission. As the incidence of parasitic and infectious diseases has decreased, there has been an increased prevalence of diseases, such as heart attacks, lung cancer, stroke and cirrhosis of the liver, related at least in part to "life style". The death and injury rate related to accidents involving alcohol and the failure to use seat belts continue to be of great concern. Teenage pregnancy, with its serious implications for mother and child, is still increasing in frequency. The Commission recognized that conditions affecting health today are not so easily prevented by medical technology as were some of the prevalent illnesses of the past such as smallpox. Many maladies affecting us today are expensive to remedy and yet are often preventable. The N.C. 2000 Commission urged the development of community-sponsored health promotion programs, with the expertise and cooperation of agencies in designing the programs which would then be administrated

by civic groups. AHECs can play a significant role in providing expertise in the design of such programs at the community level.

In the 1982 North Carolina State Health Plan, prepared by the State Health Planning and Development Agency of the N.C. Department of Human Resources, there are similar references to the need to develop systematic education in order to improve health habits of the public.

The N.C. AHEC Program has made health promotion/disease prevention an area of special emphasis for 1985-1990. An interdisciplinary AHEC discussion group on health promotion/disease prevention was convened in the summer of 1983 to examine the relationships of these topics to the mission of the N.C. AHEC Program, particularly in the context of activities and plans developed by local, state and federal agencies and commissions.

The discussion group noted that the continuing incidence of health problems related to poor health practices contrasts with the trend towards self-help and "wellness". In North Carolina, the second most rural state in the United States, there is great variation among segments of the population in terms of health promotion and disease prevention.

Some citizens of our state, particularly those with low incomes, are in need of the most basic knowledge of good health practices. Many still lack ready access to

health care and perhaps lack adequate food, water and living conditions. Others with somewhat higher educational level and comfortable incomes may be seeking to increase and improve health practices which are basically adequate. Beyond this level are those who invest significant time, money and energy into a lifestyle of fitness and wellness and who seek sophisticated information on health promotion. It is important to note that "wellness centers", spas, weight loss centers and fitness trails are appearing in cities and towns across the state along with the publication of many books and articles on fitness and health. At this time there seems to be no systematic evaluation of the validity, effectiveness or safety of these facilities and publications.

The N.C. AHEC Program focuses on the education of the health care professional; the concepts of health promotion and disease prevention may appear to be oriented to direct public education and therefore not a part of AHEC's mission. However, it is appropriate for AHECs to address the topics of health promotion/disease prevention because the N.C. AHEC Program has the unique capacity to reach practicing health professionals during their training or through continuing education and to reach all disciplines, either individually or in an interdisciplinary setting.

Program Activities

Undergraduate and Graduate Education

AHECs will identify opportunities in all disciplines for educational experiences involving health promotion/disease prevention activities in various settings, including:

- community health agencies;
- cooperative efforts with university-based health promotion/disease prevention centers or projects to develop health promotion projects for students in the health professions; and
- "teams" of students with other professionals and students of other disciplines in public education programs.

Continuing Education

AHECs will provide geographically accessible, affordable and high quality continuing education experiences for all disciplines on health promotion/disease prevention, including:

- techniques for teaching and communicating with clients/patients about their health practices;
- community-based organization and management of community resources;
- implementation of health promotion programs in different settings; and

- health promotion/disease prevention for the needs of health professionals themselves.

AHECs will provide inter-AHEC support of an annual statewide health promotion institute for health professionals, educators, business and industry representatives, clergy and lay church leaders, planners and other community members.

Technical Assistance and Consultation

AHECs will provide, upon request, technical assistance to community practitioners and service agencies in designing or implementing programs on wellness for consumers and health professionals in community settings, including support for such groups as the Alzheimer's support networks, and to provide linkages among health care agencies and community agencies to help them plan and deliver health education services to the public, with AHEC serving as a catalyst to bring groups together.

Library and Information Services

AHECs will continue to develop and make easily available information to health professionals, health associations and health educators on such topics as:

- health education;
- health promotion programs;

- financing of health promotion programs; and
- smoking, hypertension, obesity, alcohol/substance abuse, accident prevention, etc.

AHECs will investigate the development and uses of media for health promotion and will link public libraries, university libraries, and the AHEC Library and Information Services Network to provide consumer information referral systems, develop resource lists and assist other librarians in meeting information needs on health promotion topics.

Additional Activities

The above listed activities of the N.C. AHEC Program will take place during the period 1985-1990, assuming maintenance of the base budget of the Program. The N.C. AHEC Program recognizes that opportunities exist to expand its programming in Health Promotion/Disease Prevention in response to community needs. However, such expansion will require additional staffing and fiscal resources.

9. Mental Health

Manpower and Health Issues

The recruitment and retention of well-trained psychiatrists and other mental health professionals in North Carolina continues to be a serious problem. Manpower deficiencies and chronic maldistribution are well documented in reports from the Commission on Mental Health, the Division of Mental Health/Mental Retardation/Substance Abuse Services (MH/MR/SAS), the universities and other agencies. Factors which appear to contribute to this problem include training issues, poor salaries, low status, geographic and professional isolation, lack of continuing education opportunities, decreased administrative leadership and bureaucratic constraints. Independent efforts by the Division of MH/MR/SAS, the universities and individual agencies have failed to satisfactorily improve the overall situation. Consequently there is less than optimal delivery of mental health services to the people of the state at a time when the process of deinstitutionalization is placing increasing demands on community mental health services.

The need to recruit and retain psychiatrists and other mental health personnel, particularly in the public sector, has been the topic of considerable discussions which have involved the N.C. AHEC Program Central Office,

the nine AHECs, the four Departments of Psychiatry at the four medical schools, the N.C. Division of Mental Health/Mental Retardation/Substance Abuse Services (MH/MR/SAS), representatives of the 41 MH/MR/SAS Area Programs and the four state hospitals, representatives of the N.C. Neuropsychiatric Association, the North Carolina Medical Society's Committee on Mental Health and the General Administration of the University of North Carolina.

There is widespread agreement that in order to resolve the recruitment/retention issue, expanded linkages must be developed among the Division of MH/MR/SAS, the four university health science centers and the public mental health facilities. In considering strategies for such linkages it was concluded that the principles characterized by the activities of the N.C. AHEC Program had specific applicability to the issue of mental health manpower. More specifically a collaborative effort of the four university health science centers, the Division of MH/MR/SAS, the N.C. AHEC Program and the practicing psychiatrists and other mental health professionals of the state was proposed which would develop regional, community-based education and training programs in psychiatry and other mental health disciplines. The program activities described below would utilize the N.C. AHEC Program network of multiple community/university linkages to strengthen the distribution of psychiatrists in underserved communities.

Program Components

1. The provision of community training for psychiatry residents from all four medical schools through the development of teaching programs at certain MH/MR/SAS Area Programs, including psychiatry faculty based in the communities who will provide supervision to community-based psychiatry residents.

2. The provision of psychiatric consultation to underserved areas of the state (including the involvement of university psychiatry faculty, medical students, and psychiatry residents).

3. The involvement of faculty and residents from the four medical school departments of psychiatry in the regional training of AHEC-based medical residents in family medicine and the other primary care specialties, for the purpose of increasing their knowledge of psychiatric aspects of medical care.

4. The regional support for mental health personnel at the 41 Area Programs and the state psychiatric hospitals through the provision of continuing education, consultation and information services through the nine AHECs.

Program Development Activities

The initial phase of mental health activities began in 1984-1985. Selected aspects of all four program areas described above were initiated in three AHEC regions while the other six AHECs were involved in selected implementation of the four-part program design. Activities in three AHECs have included the rotation of psychiatry residents to selected MH/MR/SAS Area Programs, consultation visits by psychiatry faculty and residents to underserved areas, the training of AHEC-based medical residents where appropriate and the provision of continuing education and consultation by AHEC personnel to the community mental health professionals in the region. The other six AHECs have been involved in the development of continuing education, consultation and information services.

It is anticipated that the four program components would be developed in a phased manner in all nine AHEC regions during the period 1985-1990. Such expansion will require additional staffing and fiscal resources as outlined.

10. Occupational/Environmental Health

Manpower and Health Issues

In September 1983, an interdisciplinary group with representatives from each of the nine AHECs convened to examine the topic of AHEC's role in educational programming in occupational/environmental health. Resources for the discussion included the State Health Plan, recommendations of the N.C. Commission for the Year 2000 and programs under way or planned in educational and health institutions, industry and government agencies. Although the State Health Plan calls for more vigorous management of environmental hazards, it does not indicate a need for increased education of health professionals in this area.

However, there is a need identified in the Plan for assuring adequate occupational health training for physicians, nurses and public health providers. The AHEC system is specifically mentioned as a program that should be involved in more vigorous, systematic and coordinated training in occupational health. In response to this need, a survey of 1983 AHEC continuing education programs related to occupational health was completed and results show the following general topics that were addressed:

- hazardous waste management;
- infection control in the marketplace;

- fire and electrical safety training;
- nuclear medicine and radiation safety;
- stress and burnout in the workplace;
- patient care and occupational health; and
- food service sanitation.

In 1985-1990 there is a need for additional AHEC programming in the following areas:

- laboratory safety;
- health screening efforts in industry;
- substance use and abuse;
- protection of industrial workers and farmers;
- effects of chemical/radiation exposure; and
- occupational health law.

A number of the AHECs have identified a desire for a statewide network of occupational health information and educational resources. A pilot project is currently under way to develop a database of that information that will ultimately be available to the nine AHECs.

The following program activities were identified by those participating in the interdisciplinary meeting and are appropriate for the 1985-1990 Plan:

- There will be an increase in continuing education programs on occupational health topics that are

offered to the traditional groups for which AHEC provides routine continuing education.

- The AHEC libraries will become an important source of information regarding agencies, universities and other resources with expertise in occupational health. The pilot project mentioned above is an initial effort to address this recommendation.
- AHEC staff and faculty will be particularly attuned to needs for educational programs and services directed at hospitals and other health agency personnel. The 1983 continuing education topics indicate an awareness of this need and a continuation of that focus should be encouraged.
- The N.C. AHEC Program will serve as co-sponsor of programs in the occupational health field. The AHECs have become a part of the network by which state and regional programs can be made available to very broad audiences of health care providers; the availability of the computerized resource list should facilitate the collaboration.
- The N.C. AHEC Program will provide additional information to health providers to maintain awareness of the increasing importance of occupational health hazards. Plans for including occupational health as one of the four areas of emphasis for

1985-1990 will serve as a reminder of its importance in the field of health care.

Specific program activities may vary among each AHEC depending on their specific needs, and are intended only to show the array of opportunities for the 1985-1990 period.

These recommendations assume that major increases in staff and resources will not be necessary to provide enhanced educational offerings in occupational topics at this time.

Additional Activities

The above listed activities of the N.C. AHEC Program will take place during the period 1985-1990, assuming maintenance of the base budget of the Program. The N.C. AHEC Program recognizes that opportunities do exist to expand its programming in Occupational/Environmental Health in response to community needs. However, such expansion will require additional fiscal resources.

11. Management Education for Health Professionals

Manpower and Health Issues

Since its beginning in 1972, the N.C. AHEC Program has developed a network of relationships with health care professionals, support personnel and institutions in the state. Through this network of relationships it has been possible to assess educational needs and respond with quality programming to those needs. While AHECs have been very active in providing clinical education and training programs for both students and practicing health practitioners, educational activities addressing management topics have also been a significant part of the continuing education offered to health professionals, including administrators, by the nine AHECs.

During the 1980s, health services agencies and providers have been experiencing increasing pressure from different sources to contain costs while continuing to provide adequate levels of services. In this changing environment, health care management will become increasingly more important, more complex and more cost-conscious as we enter the period 1985-1990. In addition to the traditional issues that relate to human resources management (such as recruitment, retention, communications, productivity, motivation, performance appraisal, conflict management and interpersonal relations)

the current major issue that is affecting the management of health care delivery, especially in hospitals, is the changing federal health policy, particularly prospective reimbursement and diagnosis related groups (DRGs).

With the advent of prospective payments and with the constant emphasis on cost containment, there will be an even greater need in the 1985-1990 period for management training through AHEC programming. Wherever possible, these efforts should be multidisciplinary and designed for specific institutions. They will also be closely coordinated with the programs of the North Carolina Hospital Association and other appropriate groups. Faculty will continue to be drawn from the various health science schools, schools of business administration, service agencies, etc.

Program Activities

Undergraduate and Graduate Education

AHECs provide opportunities for management oriented student rotations in traditional clinical sites such as hospitals and other sites such as public health agencies, nursing homes, office practices and ambulatory care centers. In addition, rotations could be developed in non-academic community sites to enhance the learning of health and community resource management.

If stronger emphasis on management skills is to be incorporated into residency training, electives could be developed so that residents could participate in management issues and be involved in situations like those which they will encounter in their practice. Efforts could be undertaken to acquaint the resident with community resources, management of those resources and multidisciplinary relationships. The goal of this heightened emphasis would be to create a much deeper understanding and respect by the resident of the physicians' role within the multi-institutional network of community resources and his/her role in institutional management. The N.C. AHEC Program will work with residency directors to assist with the development of management emphasis where needed.

Continuing Education

The AHECs should continue to provide management related continuing education programs, assessment of the training needs of the total managerial team and evaluation of results. Continuing education activities could be expanded into more formalized contractual disciplinary programming. In addition, management course offerings of greater duration and depth, such as graduate level courses, may be offered under close cooperative arrangement with appropriate

universities. Increased collaboration with librarians in meeting management continuing education needs is necessary. Various new projects could be undertaken with additional resources:

- a. the development of management preceptorships which would enable the practicing health services manager to bridge the gap between clinical and administrative responsibilities;
- b. in order to gain full utilization of appropriated funds for management education, a system of tools for in-depth management needs assessment could be developed initially as a model for the total system; and
- c. general evaluation methods to measure management education results are needed as administrators will increasingly seek to measure the effectiveness of programs designed to improve management skills.

Technical Assistance

Needs associated with management-related issues should continue to be addressed within the scope of AHEC's mission, primarily through management consultation/organizational development assistance to health services. The AHEC could also as a clearinghouse regarding available resources in

the area which could be available to the institution for consultation. Linkage will be made with the schools of business and management as with health sciences schools.

Library and Information Services

Print and non-print management resources should continue to be provided. The development of core management collections, subject area bibliographies, and/or union catalogs should be developed in each AHEC. Use of information services and resources should be promoted to management personnel in health services agencies in addition to hospitals. Increased collaboration with continuing education directors in meeting management education needs is essential. With additional funds, an extensive management collection could be developed in at least one library to serve as a resource for the AHEC library and information services network and to support increased regional health services management education.

AHEC Staff Development

AHEC faculty and staff should be encouraged to develop skills in management areas such as marketing, financial management and human resource management. A multi-disciplinary approach to management training and problem solving should be promoted within the N.C. AHEC Program. Additional funding

would be required to provide management specialists to community institutions to increase management knowledge and skills.

VI. Statewide AHEC Education and Training Resources:
Libraries and Biomedical Communications Services

Several principles have guided the evolution of statewide education and training resources and growth of the statewide network of libraries which provide information and biomedical communications services. The following principles continue to be relevant for the 1985-1990 AHEC Plan:

- The continued maintenance and development of up-to-date libraries in each of the nine AHECs is critical to the success of the 1985-1990 Plan of the Statewide AHEC Program.
- Libraries and access to information and biomedical communications services serve several important functions, namely (1) a resource to students and residents on rotation from the university, (2) a resource for students and residents based at the AHEC, (3) a resource for faculty and staff based at the AHEC, (4) a resource for practitioners and support personnel within the AHEC regions and (5) a resource for the statewide AHEC Program through various inter-AHEC exchange relationships.
- As with all AHEC faculty and staff, AHEC librarians and biomedical communications personnel have responsibilities at the AHEC and in each county of

the AHEC region. These extramural responsibilities relate both to the provision of informational materials, upon request and to helping each county develop an appropriate level of informational services and staffing.

- Libraries and information services have been developed as part of a mutually supportive network with other AHEC libraries, the university health science libraries, regional resources and other components of the national biomedical communication network.

Goal 3: The third goal of the AHEC Program is to continue the development of information and biomedical communications services which a) are integrated into the total educational effort of the AHEC, b) serve as regional resources for all types of health manpower and c) participate in the national and statewide networks for dissemination of health information.

In fulfilling this goal over the next five years, the N.C. AHEC Program will evaluate the services currently provided, will explore ways to enhance or modify current services as appropriate and will provide new services within the constraints of available funding.

1. Continuing Information Services

- a. Resource sharing will continue as AHEC libraries disseminate information in all formats to

health care providers, students and educators. Current mechanisms for sharing resources among the libraries, such as the development and maintenance of statewide lists of audiovisuals and serials, will continue. Cooperative collection development will be encouraged to avoid costly and unnecessary duplication of resources.

- b. Technical assistance on information resource management and outreach information services to health care agencies and educational institutions will be provided by each AHEC.
- c. In order to maintain adequate information services, the guidelines for services developed in 1981, will be revised to reflect long-range planning of the N.C. AHEC Program and changes in information services and technologies.
- d. The AHECs will continue to promote information services and resources to health professionals in North Carolina.

2. New and Enhanced Information Services

Some of the new services and activities to be undertaken as described below, can be provided by the network at present levels of funding.

- a. AHEC librarians will play a key role in educating health care providers, faculty and students on the information management capabilities of microcomputers.
- b. With the growth and development of electronic linkages between the AHECs, library information services and procedures which are common to all will be standardized to improve efficient resource sharing.
- c. Health care consumers will continue to need current, accurate and relevant health information resources and materials. AHEC will provide these types of materials to health professionals for their use in consumer education. The AHEC library and information services network will work to develop stronger links with public library professionals through community contact, workshops and exchanges of information to assist these librarians in developing quality collections of consumer health information.
- d. As part of the focus on the five major issues which will have an impact on the health care system in the coming years, AHEC libraries will assess and evaluate their collections

of materials in aging, health promotion, mental health, occupational health and management education. Each library will develop a core collection of essential materials in a variety of formats in each of these five areas. In addition, each library will develop expanded, in-depth collections of materials in one or two of these topic areas.

- e. As noted in Chapter IX of the 1985-1990 Plan, telecommunications technology linked with computers will be assessed for its feasibility and potential in the more efficient provision of information services: for transmission and reception of not only interlibrary loan requests, but also complete text of documents; creation and manipulation of data files; statewide lists of serials, audiovisuals, or monographs; electronic mail services; and shared bulletin boards and newsletters.
- f. The role of AHEC library and information services professionals will expand to include consultation, administrative management, consortium coordination, information facilitation and education.

3. Biomedical Communications Services

The N.C. AHEC Program is committed to providing appropriate teaching resources to support the AHEC teaching faculty and coordinators and other health educators in their regions. The method used to obtain effective teaching materials varies from AHEC to AHEC, some using the resources of local hospitals and educational institutions, some through AHEC-based staff. AHECs with particular expertise in biomedical communications will:

- a. produce graphics, slides, photographs, illustrations, exhibits, audio-recordings and video programs to support all facets of AHEC's educational programs;
- b. provide audiovisual equipment loan services to support AHECs undergraduate, graduate, in-service, staff development and continuing education programs;
- c. identify academic/non-commercial audiovisual production and biomedical communication services and support cooperative agreements to share resources and maximize use of people and equipment;
- d. advise health professionals and health care agencies on audiovisual resources and equipment

to upgrade and enhance their biomedical communications;

- e. consult with health educators and faculty on innovative audiovisual teaching methods and instruct them on the use of audiovisual materials and equipment;
- f. organize, sponsor and teach workshops for health professionals and educators on existing and emerging biomedical communications technologies;
- g. investigate new biomedical communication technologies and advise AHEC administrators and health educators of resources which could strengthen and enhance educational programs; and
- h. compile a directory of specialized equipment, local production contact people and production services available outside the AHEC biomedical communication network for the purpose of resource sharing.

VII. Minority Representation in Health Fields

Principles

- Efforts to improve the retention, geographic distribution, specialty distribution and quality of health manpower must continue to include efforts to increase minority representation in health. The N.C. AHEC Program controls admission to very few programs, with the exception of some primary care residency programs and selected other activities. As such, increased representation of minorities in education and training programs is largely the responsibility of academic institutions.

- The N.C. AHEC Program will, however, continue to be involved with activities which help increase minority representation in health fields. These activities will be stimulated by (a) efforts which affect admissions to those education and training programs conducted by the AHEC, (b) program activities targeted to health careers awareness among young people to increase minority representation in health fields and (c) program activities which increase the awareness among practitioners and support personnel of the health needs of minority and disadvantaged groups.

Goal 4: The fourth goal of the AHEC Program will be to continue the development of activities which serve to increase minority representation in health careers.

In fulfilling this goal, the 1985-90 Plan includes the following, which will be coordinated with existing programs:

1. A commitment, on a statewide basis, to increase representation of minorities in health careers in a variety of ways:
 - a. In general, the AHEC Program has enrolled a number of minorities in AHEC-sponsored primary care medical residency training programs. Efforts will be made to maintain this accomplishment where it has occurred, and to increase enrollments in the other programs. While attendance at continuing education and in-service education programs is beyond the control of the N.C. AHEC Program, there has been generally good representation of minority health professionals and support personnel at AHEC-sponsored programs. Efforts will be made to expand this participation. Such efforts will include needs assessment activities which give specific attention to minority health personnel, and subsequent programming to help address these needs.

- b. Efforts will be made to provide technical assistance to community agencies and public schools as they attempt to attract minority students to health careers and to better prepare them for these careers.
 - c. A commitment to have minority representation on the various advisory committees of the N.C. AHEC Program.
 - d. Efforts will be made to increase collaborative relationships with those traditionally minority-oriented educational institutions that have health sciences programs. These efforts will seek to stimulate joint sponsorship of continuing education programs and to help improve health professions programs. Efforts will also be made to increase the number of faculty from minority-oriented educational institutions who serve as faculty in programs sponsored by the N.C. AHEC Program.
 - e. Efforts will be made to sponsor continuing education programs that emphasize the special health care needs and problems of minorities and disadvantaged population groups.
2. Efforts will continue to seek minority faculty and staff when vacancies occur in the N.C. AHEC Program.

AHEC SYSTEMS MANAGEMENT

VIII. Health Manpower/Health Issues Analysis and Evaluation

Principles:

- As a program dedicated to the education and training of health manpower of all types, the N.C. AHEC Program is involved with the collection and analysis of data relating to health care and health manpower needs in all counties of the state.
- The education and training activities of each AHEC are to be developed in the context of available health manpower and health issues data so as to assure that AHEC programming is directed toward an improved distribution, retention and quality of health manpower.

Goal 5: The fifth goal of the N.C. AHEC Program is to continue to target program activities toward an improved distribution, retention and/or quality of health manpower, in the context of available health care and health manpower data.

The program will continue to participate in interactions among the Program Director's office, each AHEC, the various university health science centers, the UNC-CH Health Services Research Center, the State Center for Health Statistics, the State Health Planning and Development Agency and other groups, as needed, concerning the collection, analysis and interpretation of health manpower and health care data.

Those data collected and maintained within the Program Director's office will be available on a regular basis for each AHEC to use in planning education, training, consultation and technical assistance activities.

Wherever possible, the program will assist other agencies with primary responsibility for health care and health manpower data collection and analysis (e.g. state licensing boards, the Health Services Research Center, the State Center for Health Statistics, etc.). The program will also work cooperatively with the Office of Rural Health Services, the National Health Service Corps, Health Systems Agencies and other agencies and institutions concerned with the distribution and retention of health manpower.

IX. Educational Technology and the Delivery of Educational Programs/Services

Prior to indicating the sixth goal of the N.C. AHEC Program for 1985-90, several principles guiding the provision of education and training programs need to be restated.

- The N.C. AHEC Program is committed to enhancing the cooperative effort of both learners and teachers by making available a broad spectrum of educational activities.
- The N.C. AHEC Program is committed to providing educational activities and services of the highest quality, and will attempt to ensure that the educational needs of health professionals and support personnel are met in the most effective and efficient manner possible.
- As a program dedicated to the provision of appropriate education and training programs of the highest quality for health manpower in the state, the N.C. AHEC Program will systematically and continually assess the rapid development of new technology for the delivery of educational programming.

Goal 6: The AHEC Program will continue to monitor evolving educational methodology and technology in order to assure that the educational needs of health professionals, support personnel and employing health organizations are met in the most effective and efficient manner possible.

In fulfilling this goal, during the period 1985-90, the N.C. AHEC Program will participate in statewide groups and/or committees designed to address the role of emerging educational technology and its application to the broad spectrum of educational programming provided by AHEC.

In addition, the N.C. AHEC Program will work actively with health care professionals, educators and health care institutions to develop technologies most appropriate to the needs of North Carolina.

Although much technology, such as teleconferencing, slow scan television, satellite networks and computer assisted instruction is in a relatively early stage of development and sophistication, the N.C. AHEC Program is committed to enhancing its capabilities through effective technology to provide education and training programs to the maximum number of health professionals and institutions in the state.

The N.C. AHEC Program is also committed to further development of the use of microcomputers and other data storage and retrieval technologies in order to enhance not only the efficient management of the program, but also the delivery of educational programs and information services. The N.C. AHEC Program, through its statewide library and information services network, is developing the computer-based capability to share and transmit information and knowledge of resources in a rapid and efficient manner.

X. AHEC Organization and Administration

Principles

- The N.C. AHEC Program is a partnership between four university health science centers and nine regional educational and training centers. The essence of this partnership is mutual planning and mutual decision-making on policy issues.
- The partnership is based on contracts between the involved institutions. Affiliation agreements also bind the UNC-CH health science center to its affiliated AHECs. These contracts and agreements recognize that (1) the responsibility for academic quality rests with the university through its AHEC-based faculty and (2) the responsibility for the efficient delivery of clinical services to the community rests with the community hospital and its medical staff.
- Decision-making with respect to program development, administrative policies and the recruitment of AHEC-based faculty and administrative staff is to reflect the mutual interests of the statewide AHEC Program, the university and the AHEC (its corporation, its faculty and staff, the primary hospital and its medical staff and other groups, as appropriate).

- Each AHEC also has extended partnerships with a wide variety of community hospitals, service agencies, practitioner groups and planning/regulatory agencies. Maintaining collaborative relationships with appropriate federal, state and local programs that have part, or all, of their mission relating to the improvement of health manpower distribution, retention and quality is essential.
- The statewide AHEC Program and each of the nine AHECs require an effective communications system, with clear points of responsibility, authority and accountability which recognizes the complexities inherent in a multi-institutional partnership that is ultimately grounded in corporate structures in the community and at the university. While each AHEC should, and does, handle its communications in a manner which reflects local circumstances, it is important that this process be clearly identified. This is especially true for those individuals (faculty, coordinators and staff) who have made career decisions to full-time service to an AHEC.
- While the 1985-90 AHEC Plan must further stimulate better communication throughout the Program, it must also recognize that for a multi-institutional partnership to function effectively there must continue to be

a minimum of bureaucracy and a maximum of flexibility to meet regional needs within broad program goals.

Goal 7: The program will continue the development and evolution of an organizational structure and a style of administration which (a) recognizes the above-mentioned principles and partnerships and (b) includes a framework for regular input by AHEC-based faculty, coordinators and staff in decisions influencing their programs and their careers.

In fulfilling this goal, the 1985-90 AHEC Plan includes the following:

1. A commitment to maintain a set of written statements with respect to AHEC organization and administration that elaborate on the above-mentioned principles and on the AHEC contracts. These statements consist of the following:
 - a. A narrative description of the structure and administration of each AHEC including a brief description of the role of faculty-staff committees, hospital medical education committees, etc.
 - b. An organizational chart for each AHEC.
 - c. A description of the role and composition of the corporations holding the AHEC contracts, including a description of the means by

which the corporations are kept informed of the accomplishments and policy questions facing the AHECs.

- d. A brief description of the role and composition of each AHEC's specialty advisory committees, including the methods of appointment and their terms of service. Although there is some variation in the advisory committee structure of the various AHECs, each has a range of regional advisory committees specific to various types of health manpower (allied health, nursing, pharmacy, etc.). Many AHECs also have other advisory committees that represent specific disciplines within a general health science field (i.e., allied health advisory committees for medical technology, physical therapy, etc.).

2. A commitment to the further consideration of subregionalized educational activities where appropriate. While regional variation does not lend itself to formal subregional activities in all AHECs, many AHECs have developed some form of subregional center(s) for continuing

education and information services. These subregional centers not only bring programs closer to community practitioners, but do so in a cost-effective manner.

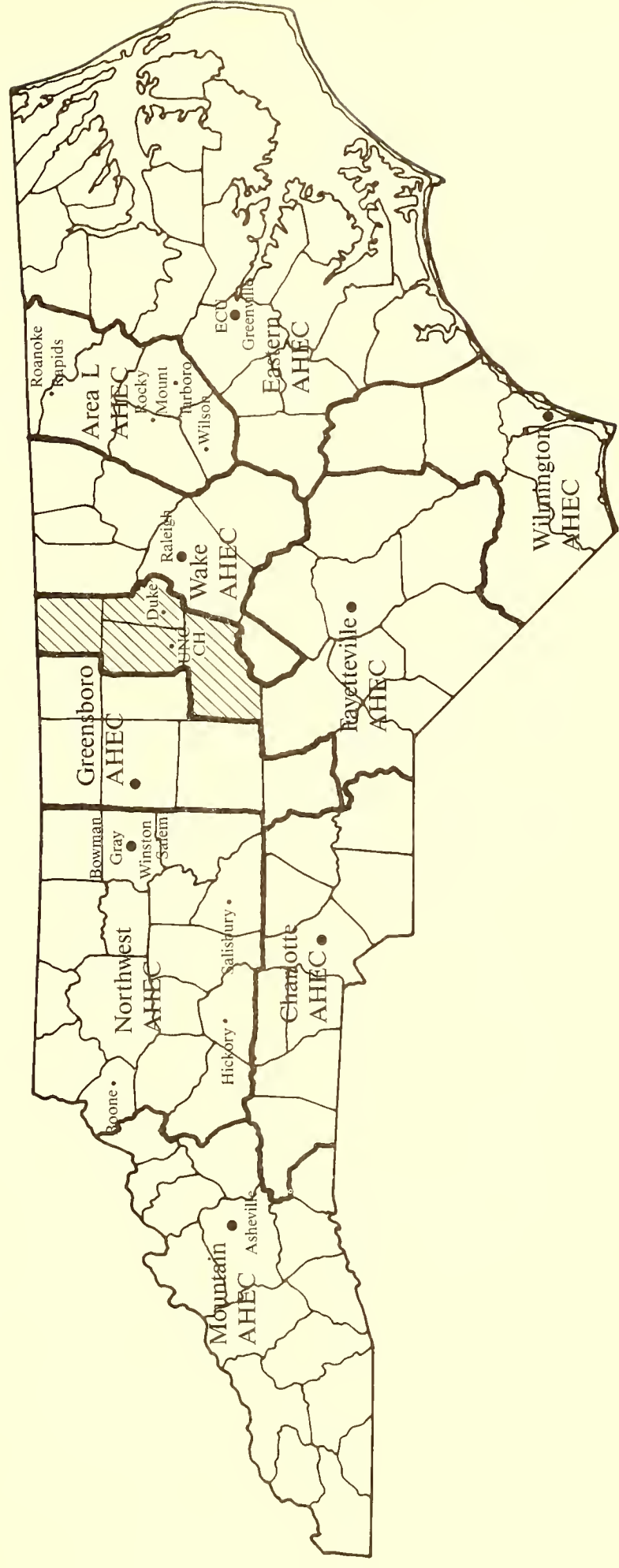
3. A commitment to fulfill the following obligations of importance to the management of the statewide AHEC Program:
 - a. Regular and timely completion of the Quarterly Report.
 - b. Regular and timely completion of the Continuing Education System Report.
 - c. Participation in periodic site visits by the AHEC Program Director and AHEC Central staff members to assess the effectiveness of the AHEC in meeting the needs of practitioners and institutions in the counties served by the AHEC. These visits will be arranged by the Program Director in consultation with each AHEC Director.
 - d. Submission of a written annual report by each AHEC Director for each health manpower discipline represented in the AHEC. The report is to be submitted by August 31 each

year and is to include highlights of accomplishments during the past year, issues of concern and future directions.

In fulfilling Goal 7 of the 1985-90 Plan, the AHEC Program Director will maintain a set of written statements with respect to AHEC organization and administration at the statewide level. These statements are embodied in the contracts with each of the nine AHECs and, in the case of the UNC-affiliated AHECs, in associated Affiliation Agreements. These documents include a description of the role of the AHEC Program Director, specifications of the process to be followed in the event of a vacancy in the position and specifications for a required five-year review of the performance of the AHEC Program Director.

The N.C. AHEC Program will continue to be the responsibility of the Board of Governors of the University of North Carolina. The program is based in the Division of Education and Research in Community Medical Care in the Office of the Dean of the School of Medicine at the University of North Carolina at Chapel Hill.

North Carolina Area Health Education Centers (AHEC) Program



Projected Health Sciences Education
in AHECs (1985-1990)

	<u>Number of Student Months *</u>					
	<u>1985-1986</u>	<u>1986-1987</u>	<u>1987-1988</u>	<u>1988-1989</u>	<u>1989-1990</u>	
Allied Health	1916	1916	1958	1967	1982	
Dentistry	187	188	188	188	189	
Medicine	1287	1296	1310	1323	1332	
Nursing	2848	2906	2958	2962	2993	
Pharmacy	465	466	473	475	475	
Public Health	291	264	264	265	265	

* 1 Student Month = 20 Instructional Days

Projected Hours of Continuing Education
Provided in AHECs (1985-1990)

	<u>1985-1986</u>	<u>1986-1987</u>	<u>1987-1988</u>	<u>1988-1989</u>	<u>1989-1990</u>
Allied Health	2132	2164	2214	2219	2241
Dentistry	815	821	819	830	836
Medicine	2451	2507	2547	2547	2547
Nursing	3712	3681	3646	3676	3676
Pharmacy	231	247	268	291	310
Public Health	664	676	680	697	696
Multidisciplinary/Other	622	653	681	696	72
<hr/>					
TOTAL	10627	10749	10855	10956	11026

ADDENDA

XI. Addenda

The preceeding program implementation sections of this statewide plan for the N.C. AHEC Program have been developed in the context of stable funding which only anticipates salary raises and inflationary increases as determined appropriate by the North Carolina General Assembly for the period 1985-1990. The faculty and staff of each AHEC and their affiliated health science schools have responded, however, to the needs of health personnel and their institutions throughout the state by proposing a variety of new projects and expanded activities that meet the health manpower needs of 1985-1990.

Following a review of these many proposals, the AHEC Directors have selected the following items that are of particular concern for the N.C. AHEC Program for 1985-1990. These activities cannot be implemented without additional funding to the program. Projects identified in aging and mental health have been selected as high priorities for the program for the period 1985-1990.

1. Allied Health: further develop AHEC-based faculty and staff in allied health.
2. Dentistry: expand continuing education programming for dentists and dental auxiliaries.

3. Medicine: maintain faculty compliment necessary to support community-based primary care residency programs and expanded clinical medical student rotations.
4. Nursing: continuing implementation of a plan for off-campus BSN degree programs and assess the need for off-campus MSN education programs.
5. Pharmacy: further develop faculty support for off-campus clinical components of the doctor of pharmacy program.
6. Public Health: further develop faculty and staff in public health.
7. Aging: develop multidisciplinary community-based educational experiences in aging for students and special projects in aging for practitioners in each AHEC-based on identified educational needs.
8. Health Promotion/Disease Prevention: expand programming for students, residents and community practitioners, assist in coordinating existing resources and develop special projects in each AHEC.
9. Libraries/Biomedical Communication Services: maintain statewide information services network by allowing for acquisition of materials and

expansion of information services to address new programming emphases.

10. Management Education for Health Professionals: develop multidisciplinary approaches to management training and expand technical assistance and consultation services in each AHEC.
11. Mental Health: implement a comprehensive plan to improve recruitment and retention of psychiatrists and other mental health professionals.
12. Minorities: develop health career and health education programs oriented to the recruitment of minorities to health fields.
13. Occupational/Environmental Health: develop a computer data base of educational resources and assist in the coordination of resources for educational programming.

The following pages provide a brief elaboration of these thirteen items.

Disciplinary Programs and Educational Resources

Addendum

1. Allied Health

The demand for education and training programs for the broad spectrum of allied health manpower in each AHEC, and for targeted programs in manpower shortage areas such as physical therapy, has far exceeded expectations. In addition, demands for technical assistance activities and for allied health participation in the interdisciplinary activities of the N.C. AHEC Program will increase. In order to meet these demands, there is a need to assure that each AHEC can gain access to adequate educational resources and complete the development of AHEC-based faculty in allied health.

Addendum

2. Dentistry

There will be a growing need for continuing education opportunities for dentists and dental auxiliaries during 1985-1990. These needs are being identified and transmitted to several AHECs by the dentists in community practice. It is proposed that with additional funding the AHECs can expand their continuing education programming to meet these increased needs.

Addendum

3. Medicine

Requirements for the maintenance of community-based residency programs have increased significantly during the past five years. These requirements were not anticipated when projections were initially made in 1973. In order to complete the faculty complement of the various residency programs to meet quality standards, it is necessary to obtain funding for several faculty positions.

Further, the development of the East Carolina University School of Medicine was initiated in 1975. At the time of the development of the N.C. AHEC Program in 1973 the scope of ECU medical student rotations to AHEC settings was not known. Additional funding is needed to provide faculty support in several communities of eastern North Carolina to enable third- and fourth-year ECU medical students to rotate to those communities.

Addendum

4. Nursing

The 1980-1985 AHEC plan noted the need to make available academic programs for qualified RNs leading to a baccalaureate degree in nursing, which would also allow them to remain employed in their current positions. The N.C. AHEC Program, in association with five UNC Schools of Nursing, is now implementing a plan for five off-campus baccalaureate degree nursing programs designed for the practicing RN in five underserved regions of the state. During the period 1985-1990 continued funding will be necessary to conduct a second round of off-campus baccalaureate programs where needed.

In addition, in response to the need noted in every AHEC region for increased specialty and management skills for nurses, the N.C. AHEC Program will continue to work with the AHECs and their affiliated Schools of Nursing to assess the need and opportunities for additional off-campus MSN education programs in concert with the academic planning activities of the University of North Carolina.

Addendum

5. Pharmacy

The UNC School of Pharmacy has obtained approval from the UNC Board of Governors to implement a Doctor of Pharmacy (Pharm.D.) program. This will be a two-year program based at the School of Pharmacy. Since the second year of the program for all students will take place in various AHEC settings, funds are needed for faculty and staff support in those AHECs to which the students will be rotating.

Addendum

6. Public Health

During the first phase of the N.C. AHEC Program it was assumed that the education and training needs in public health could be met by having one-half time public health coordinators in each AHEC. For 1985-1990, the demands in public health will increase for student rotations, coordination of the off-campus M.P.H. program, continuing education and technical assistance activities. These demands will be especially increased by the new focus of the N.C. AHEC Program in interdisciplinary activities. With adequate funding for full-time public health coordinators, the AHECs can assure the responsiveness of the program to health departments and community health agencies throughout the state.

Addendum

7. Aging

As outlined in chapter V.B. of this plan, programs designed to help students, residents and community practitioners of all types to meet more effectively the needs of an aging population have become a top priority for the N.C. AHEC Program for the period 1985-1990. In order to respond to the variety of educational and regional needs identified throughout the state, additional funding is needed for the development of:

1. multidisciplinary community-based educational experiences in the care of the elderly at each AHEC; and
2. special projects in aging at each AHEC-based on identified educational needs.

Examples of the types of projects that could be implemented in AHECs include:

1. Model geriatric curriculum: family medicine and internal medicine residency programs.
2. Geriatric multidisciplinary student rotations.
3. Model teaching sites:
 - a. senior centers
 - b. ambulatory care clinics
 - c. extended care facilities
4. Geriatric health care in the community hospital: a team approach.
5. Mini-fellowships in geriatrics for practicing health professionals.

Addendum

8. Health Promotion and Disease Prevention

The importance of education and training programs in health promotion and disease prevention has been presented in chapter V.B. The N.C. AHEC Program recognizes that opportunities exist to expand programming for students, residents and community practitioners in health promotion/disease prevention in response to community needs.

With additional funding AHECs propose to do the following:

1. through education and training, help practitioners become better resources for public education;
2. serve as a mechanism to bring agencies together for health promotion/disease prevention educational activities; and
3. develop a special project in health promotion/disease prevention in each AHEC.

Such projects would include:

1. Model resource and training center in patient education
2. Educational and consultative resources in health promotion
3. Health promotion and the elderly
4. Model hospital employee health risk appraisal
5. Interagency Health Promotion and Wellness Institute

Addendum

9. Libraries/Biomedical Communications Services

The increased cost of information materials and services during the 1980-1985 period far exceeded provision made for inflation. In order to maintain an adequate collection of informational materials for students, residents, faculty and practitioners to support the education and training programs at the AHECs during the 1985-1990 period, additional funding is needed. There is also a need for support which would allow for the phased replacement of audiovisual equipment which was placed in regional educational sites during the 1970s. Finally, some additional support will be necessary to allow for the acquisition of materials and provision of information services to address adequately the four interdisciplinary issues.

Addendum

10. Management Education for Health Professionals

As noted in chapter V.B., changing economic conditions and changes in the organization, financing and reimbursement patterns in the health care system have brought increasing pressure on the managers of health care delivery services. These problems are particularly acute for the smaller rural hospital. A multi-disciplinary approach to management training and problem solving will be promoted within the N.C. AHEC program. Such activities would build upon projects already underway in many AHECs but would be expanded to meet demands by institutions and their managers. Additional funding would be required to design AHEC programming in the following areas:

1. expanded technical assistance and consultation activities to health care institutions and agencies;
2. special projects in management education in each AHEC; and
3. assistance, upon request, to smaller hospitals in needs assessment of the institution.

Projects that would be developed include programming on:

1. Cost containment in clinical practice
2. Medical records: the new tool in DRG reimbursement
3. Institutional diagnosis: a team approach to management education
4. Middle level management: transition from clinical practice to supervision

Addendum

11. Mental Health

As outlined in chapter V.B of this plan, the implementation of a comprehensive plan to improve the recruitment and retention of well trained psychiatrists and other mental health professionals in the state has become a top priority for the N.C. AHEC Program for the period 1985-1990.

Additional funding is required to build upon an initial phase of mental health activities which began in 1984-1985. With such support it is anticipated that all four program components described in chapter V. B of this plan will be initiated in all nine AHEC regions during the period 1985-1990, involving all four university medical centers, all nine AHECs, all 41 MH/MR/SAS Area Programs and the four state psychiatric hospitals.

Addendum

12. Minority Activities

The statewide program recognizes the need to help attract minority and economically disadvantaged students to health careers, and to support continuing education programs that make use of minority faculty and cover subjects that alert all practitioners to the special health needs of minority population groups.

Several AHECs have managed to develop a few programs with limited funding. Expanded activities would be focused on activities at the high school level, on programs to improve the health careers orientation of high school and college guidance counselors and on the development of specialized continuing education programs for health professionals.

Addendum

13. Occupational and Environmental Health

The need and problems in occupational and environmental health are outlined in chapter V.B. The N.C. AHEC Program recognizes that there are already a number of institutions, agencies and programs in the state with specific mandates to address these issues. However, the AHECs are prepared to assist these groups in the coordination of educational resources and to emphasize topics related to occupational/environmental health within normal continuing education programming. In addition, the AHECs are prepared to expand programming through increased services in occupational and environmental health if funding is available.

One example of AHEC involvement would be the development of an on-line data base of educational resources in occupational health.



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Education Centers Program.

Program plan

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Program plan

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